FOUNDED IN 1856

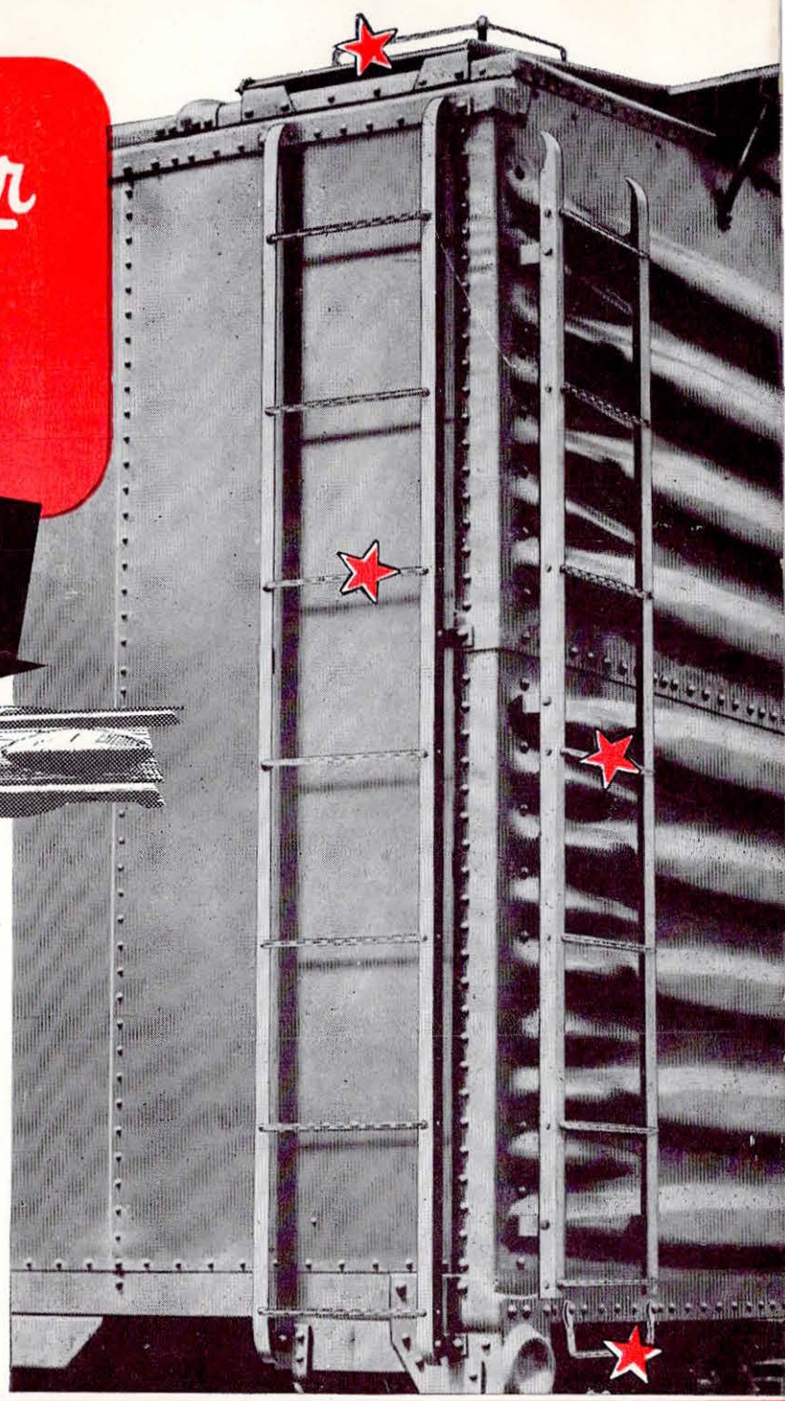
RAILWAY AGE

THE STANDARD RAILROAD WEEKLY FOR ALMOST A CENTURY

SEPTEMBER 17, 1951

GREATER *All-weather* SAFETY
for the trainman . . .

WITH THIS GRIP



WINE

"Safe-Grip"

LADDERS and HANDHOLDS

THE WINE RAILWAY APPLIANCE CO. TOLEDO 9, OHIO

ALLIED RAILWAY SUPPLY EXHIBIT

"BUFFALO"

TRUSLOCK

The New Brake Beam with the "Quick-Change" Head

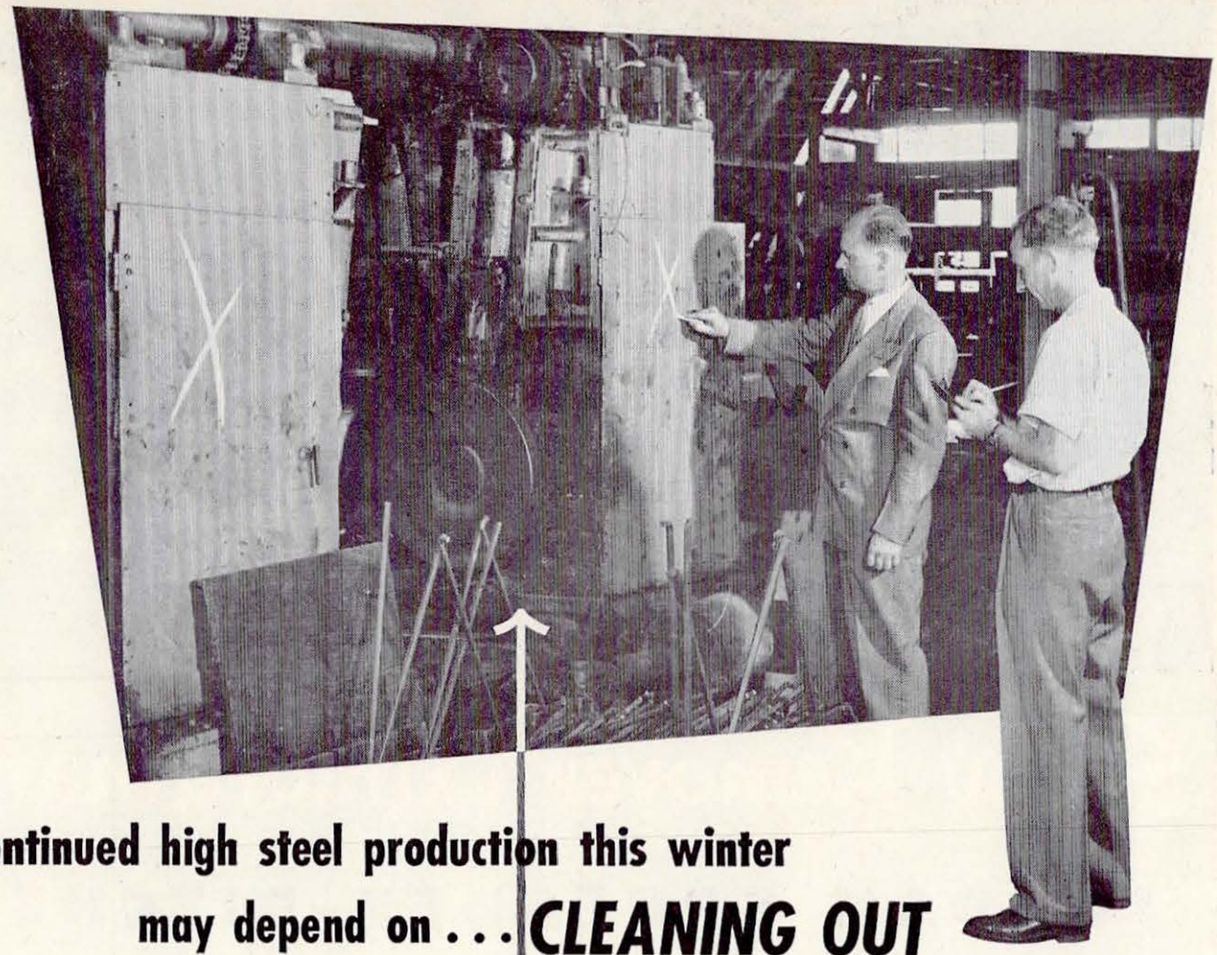
"BUFFALO"

UNIT

The Solid-Truss Brake Beam for all Unit Trucks

Space 194-195

Buffalo Brake Beam Co. · New York



Continued high steel production this winter may depend on . . . CLEANING OUT YOUR SCRAP THIS MONTH

HOW TO TURN SCRAP INTO MONEY with an organized dormant scrap round-up in your plant:

1. Appoint a top executive with authority to make decisions to head the salvage drive.
2. Organize a Salvage Committee and include a member from every department.
3. Survey and resurvey your plant for untapped sources of dormant scrap. Encourage your employees to look for miscellaneous scrap and report it to the committee.
4. Sell your entire organization on the need to scrap unusable material and equipment.
5. Prepare a complete inventory of idle material and equipment. Tag everything not in use.
6. Start it back to the steel mills by selling it to your regular scrap dealer.
7. **KEEP AT IT!**

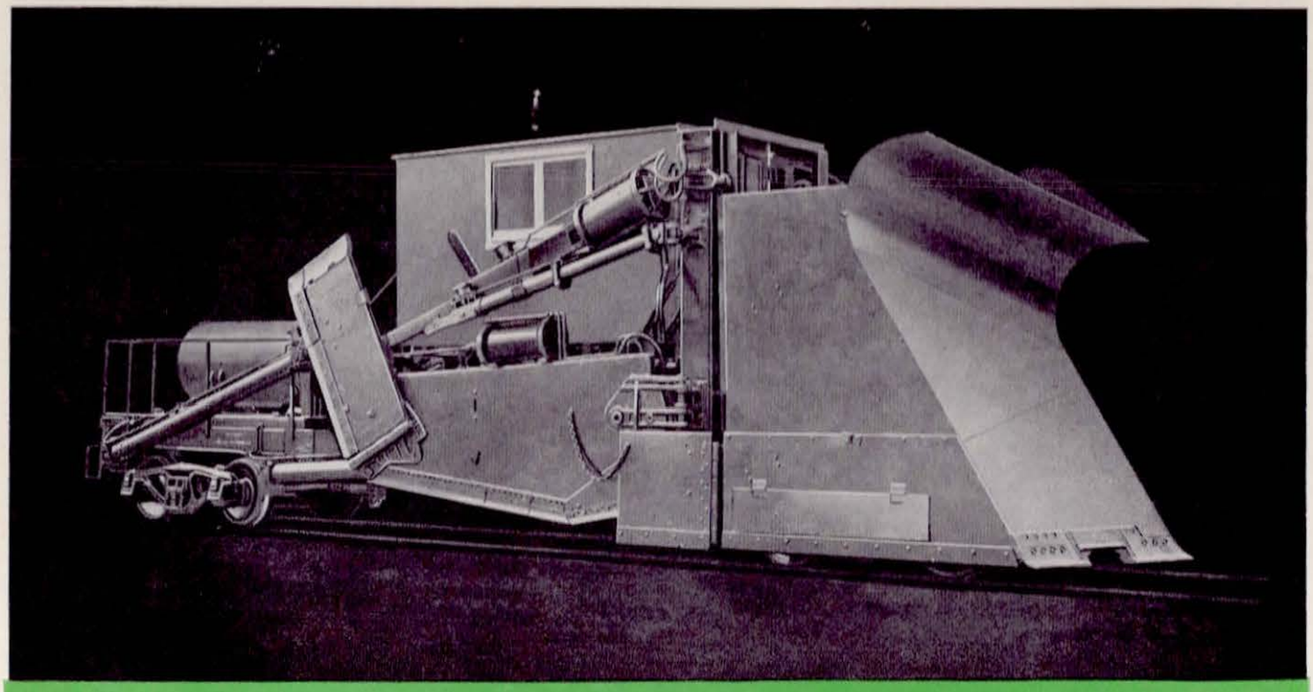
***DORMANT SCRAP** is any obsolete, broken or worn-out and irreparable machinery, tools, equipment, dies, jigs or fixtures, etc., that may encumber your premises.

Despite . . . and because of . . . the continued high rate of steel production, the steel industry is on a hand-to-mouth basis in its receipts of purchased scrap . . . *essential to production!* Mills that normally inventory a 60 day supply of scrap, are now maintaining high production with less than a week's supply on hand. *That the effect of winter on transport facilities could quickly exhaust these dangerously meager scrap inventories . . . and thus force a cut in steel production . . . is obvious.* Help assure an uninterrupted steel supply by rounding up and selling your dormant scrap* to your regular scrap dealer *this month!*

INLAND

INLAND STEEL COMPANY

38 South Dearborn Street • Chicago 3, Illinois



Snow Remover Extraordinary

JORDAN SPREADER-DITCHER -SNOWPLOW Standard Type

For keeping vital supply-ways open and traffic moving, the JORDAN Spreader-Ditcher-Snowplow has no superior.

The Jordan flanges and bucks snow in one operation. Its rugged manganese cutting blades rip out the accumulated ice and packed snow below the top of rail.

For quick, efficient snow removal in classification rail yards, for opening snow blocked track, and for plowing snow out of cuts, the JORDAN has no equal—built for either single or double track operation . . .

—plus during spring, summer, and fall months the JORDAN is used as a Spreader-Ditcher-Ballast Plow—truly an "all year 'round" maintenance tool.

O. F. JORDAN COMPANY

WALTER J. RILEY, *Chairman of the Board*

EAST CHICAGO, INDIANA

Vol. 131, No. 12 September 17, 1951

RAILWAY AGE

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Railway Signaling & Communications Car Builders' Cyclopedia Locomotive Cyclopedia
Railway Engineering & Maintenance Cyclopedia American Builder
Marine Engineering & Shipping Review Marine Catalog & Buyers' Directory
Books covering transportation and building

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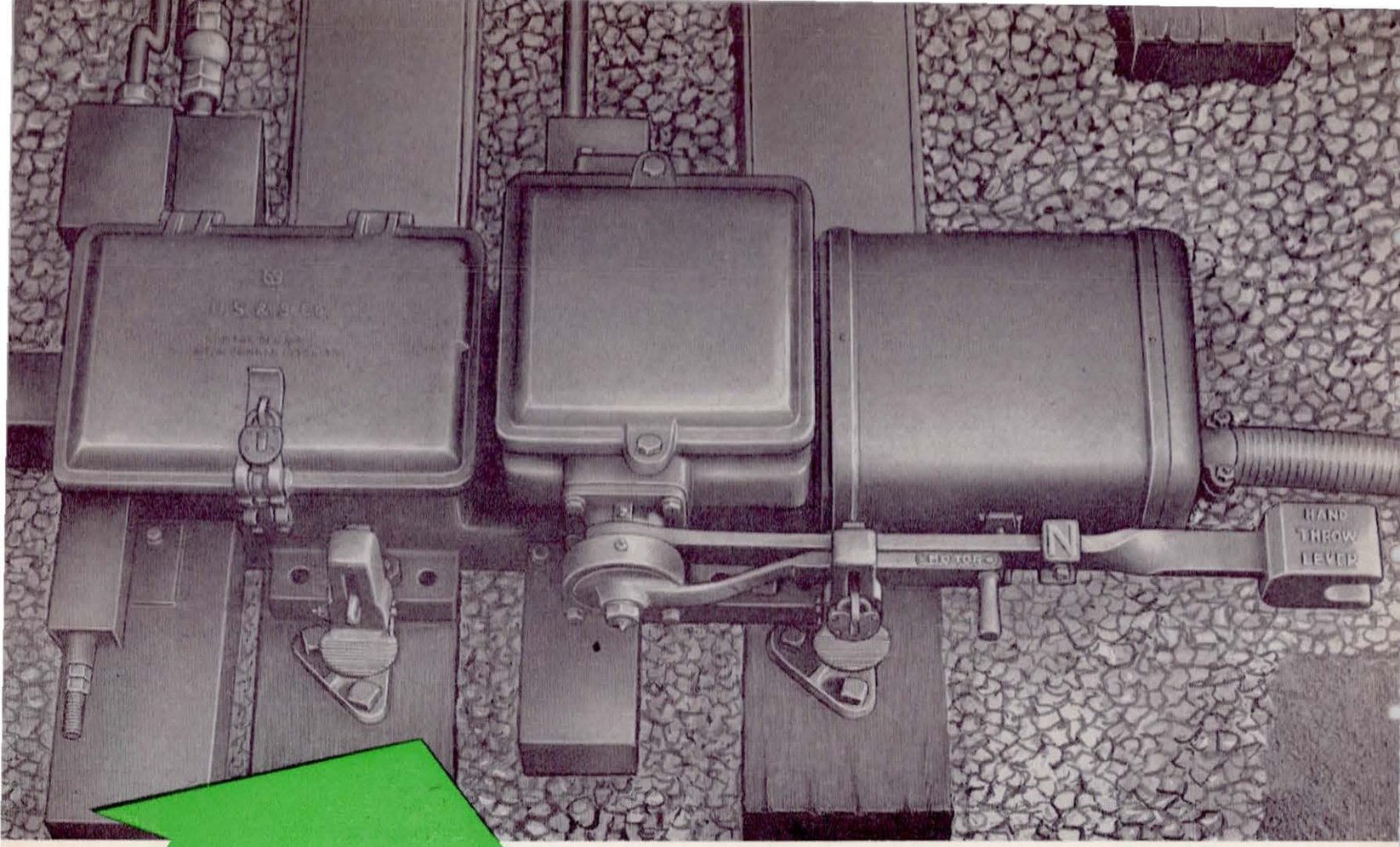
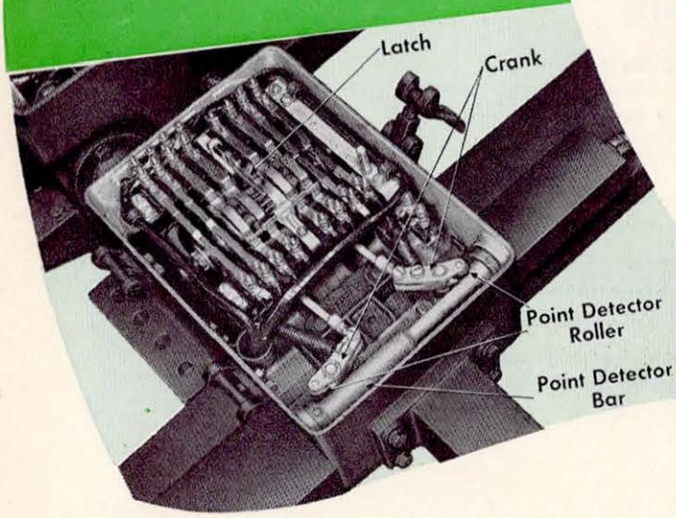


"UNION" M-3 and M-23 A&B ELECTRIC SWITCH MACHINES



..... Provide Maximum Switch Point Protection

The "Union" Styles M-3 and M-23 A&B Electric Switch Machines are furnished with an improved point detector device designed to assure increased safety and longer life. In addition to providing a positive check that the point detector connections are intact, as well as the regular check of switch point position, the point detector also:

1. Includes a latching device to positively latch the indication contacts in their most restrictive position if the switch points are forced open when locked up. Moreover, *the latch is actuated by the point detector bar movement at the time the points are forced open,* rather than by any displacement that might remain after the points have sprung back.

2. This latching device is arranged to be self-restoring on the next switch operation, and will permit the indication contacts to close if the switch points close properly and the switch machine locks up. (This feature is optional and can be eliminated if desired.)

Remember . . . too . . . that the "Union" Styles M-3 and M-23 A&B Electric Switch Machines have many other outstanding features. Ask any of our district offices for full particulars.

UNION SWITCH & SIGNAL
DIVISION OF WESTINGHOUSE AIR BRAKE CO.
SWISSVALE PENNSYLVANIA
NEW YORK CHICAGO ST. LOUIS SAN FRANCISCO

WEEK AT A GLANCE

CURRENT RAILWAY STATISTICS

Operating revenues, seven months
1951 ..... $ 5,852,688,158
1950 4,995,868,031

Operating expenses, seven months
1951 ..... $ 4,659,130,003
1950 3,933,258,106

Taxes, seven months
1951 ..... $ 643,599,245
1950 527,361,340

Net railway operating income, seven months
1951 ..... $ 430,439,242
1950 431,815,948

Net income, estimated, seven months
1951 ..... $ 272,000,000
1950 273,000,000

Average price railroad stocks
September 11, 1951 ..... 54.46
September 12, 1950 ..... 48.19

Car loadings, revenue freight
35 weeks, 1951 27,029,645
35 weeks, 1950 25,130,037

Average daily freight car surplus
Week ended September 8, 1951 .. 3,960
Week ended September 9, 1950 .. 3,646

Average daily freight car shortage
Week ended September 8, 1951 .. 12,646
Week ended September 9, 1950 .. 33,038

Freight cars delivered
August 1951 7,183
August 1950 5,203

Freight cars on order
September 1, 1951 139,104
September 1, 1950 86,156

Freight cars held for repairs
August 1, 1951 101,001
August 1, 1950 129,097

Average number railroad employees
Mid-July 1951 1,294,525
Mid-July 1950 1,247,987

Net Ton-Miles per Serviceable Car per Day
June 1951 (preliminary) 1,035
June 1950 997

In This Issue . . .

THE OLD BECOMES NEW: How the Burlington converted its antiquated and unattractive passenger station and office building at Ottumwa, Iowa, into a pleasing modern structure that is a credit to railroad and city alike is told in the copiously illustrated article which begins on page 86.

FOR "BALANCED" TRANSPORTATION: "The paramount public need for a well balanced regional transportation system of highway, parkway *and* railroad development" requires "an objective study . . . to appraise the present policy of allowing the railroad system to remain static, while concentrating investment on vehicular traffic arteries leading into Manhattan." So says New York's Regional Plan Association in a comprehensive study of interstate commuter problems in the New York metropolitan area. By special permission of the R. P. A., conclusions and highlights of this study — which was briefly noted in the July 16 *Railway Age*—are reprinted on pages 90 and 91 of this issue.

NEWS HIGHLIGHTS: Seaboard orders 25 diesels, 1,000 freight cars.—August freight car deliveries total 7,183 units.—Erie service tests plastic tie plates.—National of Mexico to build big freight car shop at Monterrey.—Terminal congestion, not car shortage, is cause of trouble in Canadian grain movement, Gordon says.—Railway Tie Association convention program.—Rock Island truck operations reprieved.—David W. Pye, long-time secretary of New York Railroad Club, dies.

FOR MECHANICAL OFFICERS: In recognition of this week's Chicago meetings of the Coordinated Mechanical Associations, this issue's leading feature article (page 75) discusses trends in diesel locomotive fuels. Basis for the discussion is a Pacific Railway Club symposium. Immediately following this discussion, and beginning on page 79, are descriptions of some new manufacturers' products of special interest to mechanical officers.

In Washington . . .

CAPITAL DOINGS: U. S. Chamber of Commerce tells shippers, railroads, how to "stretch" car supply.—I.C.C. allows new pick-up and delivery charges to become effective in Eastern territory, but not interterritorially. —Accident report recommends prohibition of face babbitting on cross-

WEEK AT A GLANCE

head ends of main rods.—Great Northern authorized to acquire Pacific Coast.—New complications in Seatrain-Savannah case.—R. W. Brown to study Norwegian railways for E.C.A.—I.C.C. gives Rock Island truck operations 60-day reprieve.

REEXAMINATION: The Chamber of Commerce of the United States plans to make within the next few months a complete reexamination of its policies on transportation. To this end, as reported in the news pages, a special 10-man subcommittee has been appointed. Among members of this committee are Coast Line and Monon Presidents Davis and Barriger.

. . . And Elsewhere

FLOOD AFTERMATH: Program committees of the Roadmasters' and Bridges & Building Associations were planning a joint session of these two groups to be held on September 18 during their concurrent annual conventions. Someone suggested a round-table discussion of problems of flood rehabilitation following the July high waters around Kansas City —and everybody applauded. Last week, with the conventions only days away, a frantic search was still under way to obtain speakers for the round table. Reason for the difficulty: maintenance engineers in the flood territory were still out in the field supervising restoration work, with no time for making speeches.

KNOTTIEST MAINTENANCE PROBLEM: Supply companies and track-maintenance men who have concerned themselves with the problem of developing satisfactory machines for taking out old ties and putting in new ones report that it is one of the toughest assignments they ever tackled. But as wages of track laborers have continued to go up in recent years this problem has been studied with renewed vigor. Now it can be reported that several machines have been developed independently in different parts of the country and are in the process of being "de-bugged" in service tests. With so many people working so hard on the problem it is difficult to see how, as one maintenance engineer put it, ultimate success can be avoided.

DAVID H. HICKS, assistant manager of labor relations of the Baltimore & Ohio, at Baltimore, has, as reported in last week's Railway Age, *been appointed carrier member of the National Railroad Adjustment Board, to succeed Andrew G. Walther, retired. Biographies of Messrs. Hicks and Walter appear in the news pages.*

CAUSE OF HIGHWAY ACCIDENTS: "Commercial vehicles (busses excepted) show a rather startling involvement" in accidents on the Pennsylvania Turnpike, spokesmen for the state's Turnpike Commission are reported to have told a September 6 conference of turnpike users at Harrisburg. In the 10 years and three months since the turnpike was opened, approximately two and one-half times as many trucks as passenger cars have been involved in fatal accidents. despite the fact that trucks account for only about one-fourth of all turnpike traffic, the commission revealed.

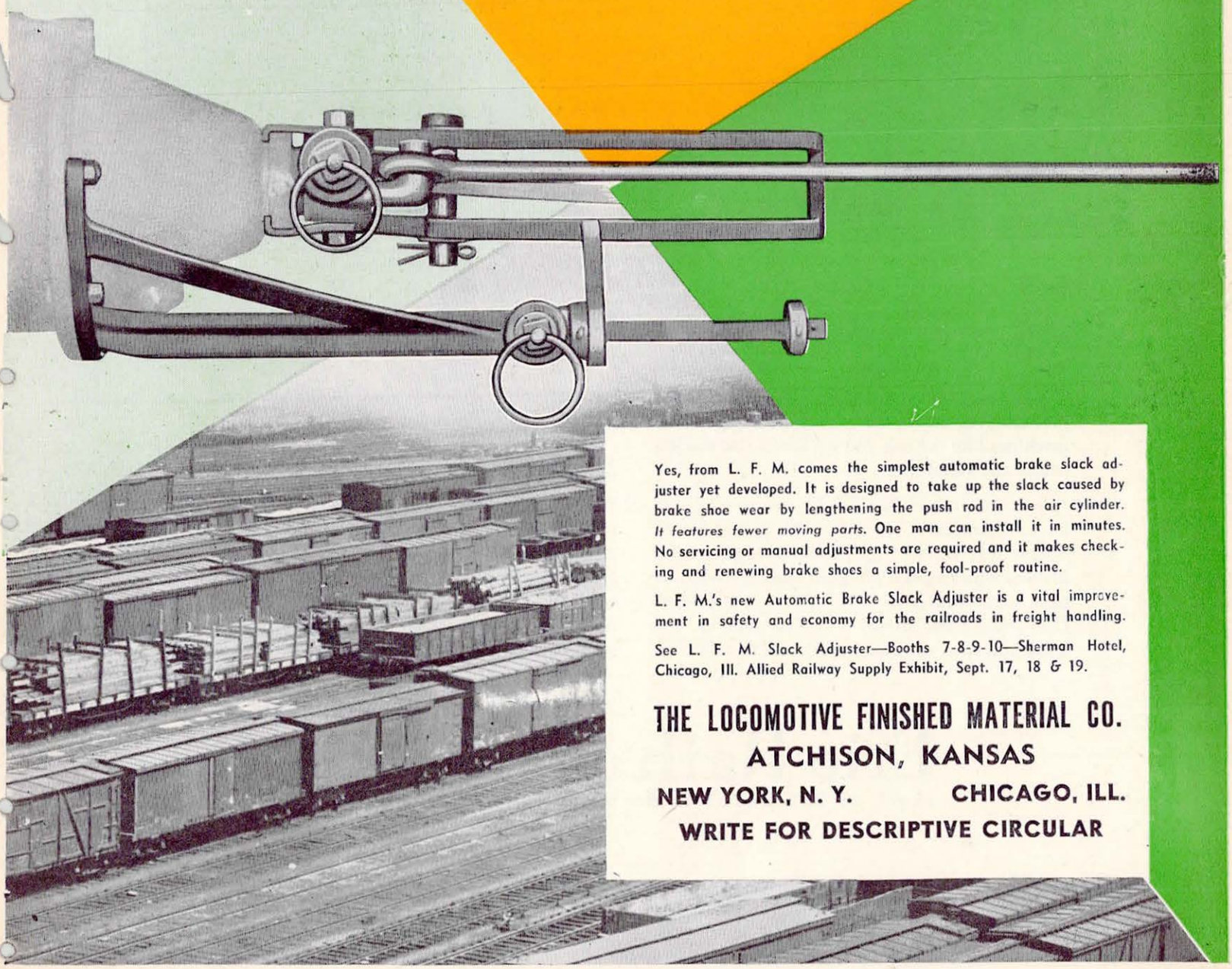
WHERE CREDIT CARDS HELP: We note that a lot of hotels are accepting airline credit cards as sufficient basis for hotel credit too, which won't hurt the popularity of air travel any — too darn bad for the railroads that they haven't been able to agree on a credit card operation that's acceptable everywhere. There's now even a restaurant credit card which is good in hundreds of expensive joints all over the country. Nothing promotes free spending like a good big handy cuff, and most railroad passenger services could do with some of this money.

NEWEST AND SIMPLEST YET

LFM
ESTABLISHED 1872

Automatic Brake
SLACK ADJUSTER

PAT. APPLIED FOR



Yes, from L. F. M. comes the simplest automatic brake slack adjuster yet developed. It is designed to take up the slack caused by brake shoe wear by lengthening the push rod in the air cylinder. *It features fewer moving parts.* One man can install it in minutes. No servicing or manual adjustments are required and it makes checking and renewing brake shoes a simple, fool-proof routine.

L. F. M.'s new Automatic Brake Slack Adjuster is a vital improvement in safety and economy for the railroads in freight handling.

See L. F. M. Slack Adjuster—Booths 7-8-9-10—Sherman Hotel, Chicago, Ill. Allied Railway Supply Exhibit, Sept. 17, 18 & 19.

THE LOCOMOTIVE FINISHED MATERIAL CO.
ATCHISON, KANSAS
NEW YORK, N. Y. CHICAGO, ILL.
WRITE FOR DESCRIPTIVE CIRCULAR

A MILESTONE IN

AMERICAN HISTORY

Bath for a Big Baby

"Housekeeping" on a railroad, keeping cars and locomotives clean, has developed ingenious machines like the one you see here to do the job better and faster.

Here is one of Erie's big diesels getting its regular bath. Chemically-treated water sprays out of dozens of jets under high pressure. Huge circular brushes whirling at high speed remove the grime that accumulates so fast on a busy railroad. Out moves the diesel—all 200 feet of it—spick and span in gleaming black and yellow in less than three minutes, ready for its next run!

You may not think cleaning a diesel important, but it is typical of how Erie attacks every problem in its constant search of finding ways to run a better railroad.

It all adds up to progressive railroading—the continuous effort to improve the safe, dependable transportation of passengers and freight. It is this spirit which has earned the Erie the reputation as a leader among railroads—ready to serve our country well, in peacetime or in war!

Erie Railroad
Mark of PROGRESS in Railroading

Unicel

the first really new freight car in 52 years—

coming your way!

Good news for railroads who must build up larger fleets to meet the demands of a growing nation—and a growing economy.

UNICEL has been thoroughly pre-tested on the road and in the laboratory. It it now undergoing official road tests on one of the nation's largest railroads.

Built on the modern science of cellular laminates — stronger, more durable, lighter than conventional steel cars of equal size by over 15,000 pounds — UNICEL can carry a 65 ton payload!

That means less dead weight to haul — greater earning capacity.

Uses less steel than conventional cars and lends itself to modern, mass production techniques.

Goods are carried with greater safety in UNICEL. A specially cushioned floating draft gear absorbs impact shock and pull jolts — results in 66% less road shock! Operating costs and maintenance costs will be less.

Built-in Unistrapping eliminates dunnage, secures loads safely and easily. Smooth interior has no cracks, pockets or corners to hold dirt. Wider doors mean easier loading. The addition of an inner wall, special insulation and a mechanical refrigerating unit quickly convert UNICEL to a refrigerator car with *75% more capacity* than a conventional 40 foot car of comparable weight.

PSC

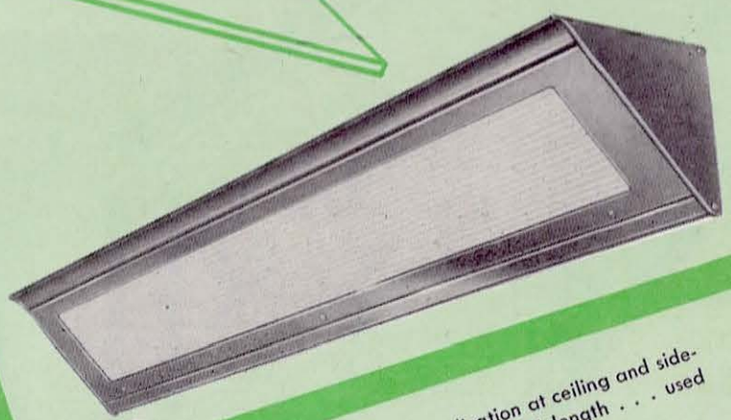
Get full information today. Write—

PRESSED STEEL CAR COMPANY, INC.

6 No. Michigan Avenue, Chicago, Illinois • 230 Park Avenue, New York

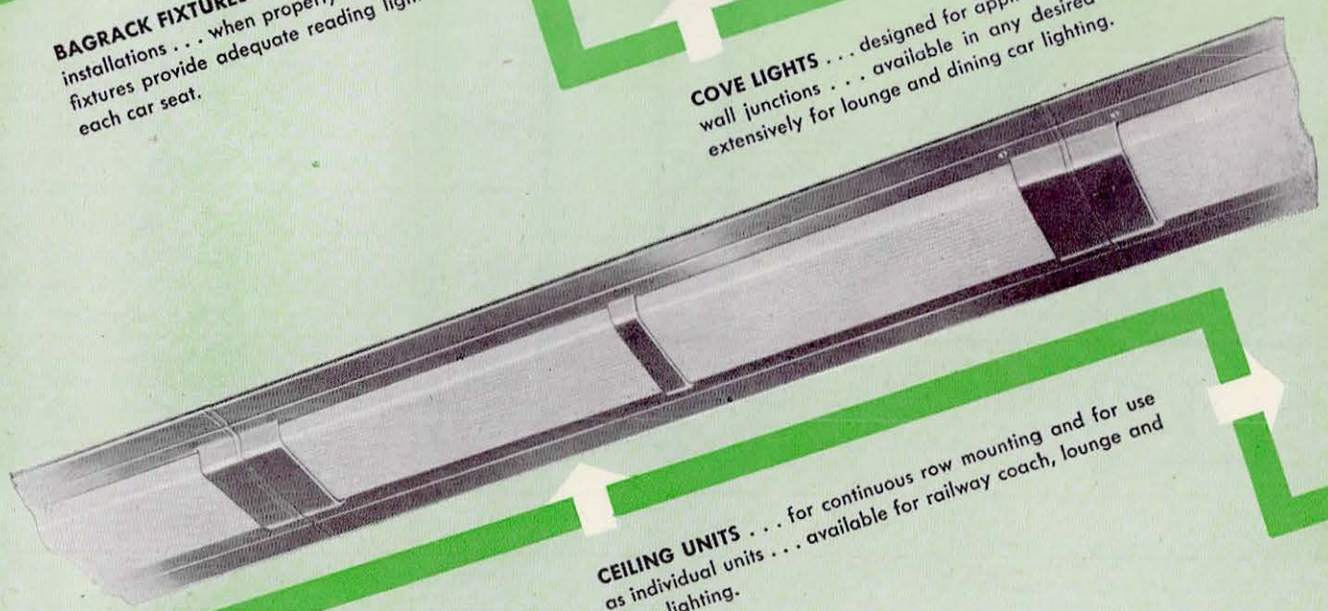
Add DISTINCTIVE CHARACTER TO RAILWAY

ATTRACTIVE • WELL DESIGNED • QUALITY MATERIALS •



BAGRACK FIXTURES . . . for coach bagrack installations . . . when properly spaced, these fixtures provide adequate reading light over each car seat.

COVE LIGHTS . . . designed for application at ceiling and side-wall junctions . . . available in any desired length . . . used extensively for lounge and dining car lighting.



CEILING UNITS . . . for continuous row mounting and for use as individual units . . . available for railway coach, lounge and diner lighting.

THE SAFETY CAR HEATING

OFFICES: NEW YORK · CHICAGO · PHILADELPHIA

SAFETY COMPANY PRODUCTS INCLUDE: Complete Air-Conditioning Equipment • Genemotors • Generators • Fans •

PASSENGER CARS...

SAFETY GLASS SHADE

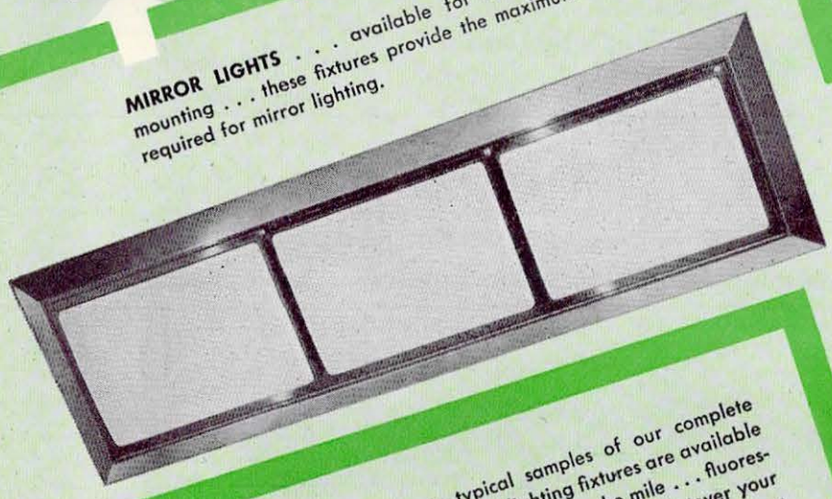
LIGHTING FIXTURES for

Coach, Diner, Lounge and Sleeping Car Installations

EXCELLENT WORKMANSHIP • BEAUTIFULLY FINISHED • MAXIMUM LUMINOSITY

MIRROR LIGHTS . . . available for horizontal or vertical mounting . . . these fixtures provide the maximum light output required for mirror lighting.

BERTH LIGHTS . . . to provide adequate reading light and general illumination for sleeping compartments.



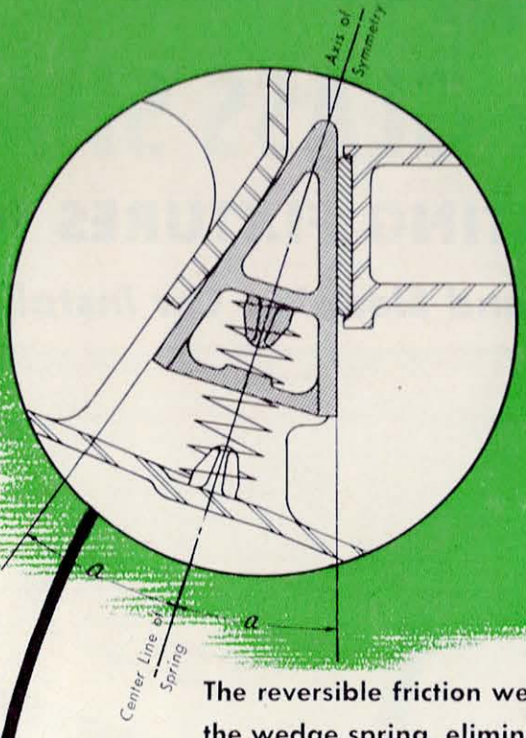
The fixtures illustrated are typical samples of our complete railway lighting fixture line. Safety lighting fixtures are available from a few inches in length to end-to-end by the mile . . . fluorescent or incandescent . . . glass or plastic shades. Whatever your lighting requirements . . . Safety engineers have the answer in distinctive lighting fixtures.

AND LIGHTING COMPANY INC.

ST. LOUIS · SAN FRANCISCO · NEW HAVEN · MONTREAL

Regulators • Lighting Fixtures • Switchboards • Parcel Racks • Generator Drives • Motor Alternators •

In the Buckeye C-R Truck



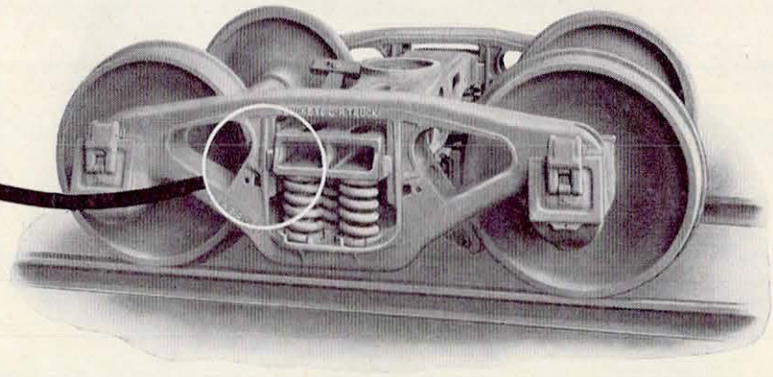
THE FRICTION WEDGES ARE REVERSIBLE — PROPER ASSEMBLY IS ASSURED

The reversible friction wedge, symmetrical about the center line of the wedge spring, eliminates the possibility of improper assembly:

- No delays in building programs or in riptrack work—
- No faulty operation—

} due to improper assembly

This feature is one of the many refinements in design available in the C-R (Cushion-Ride) Truck which contributes to its ease of assembly and maintenance and to its outstanding performance.



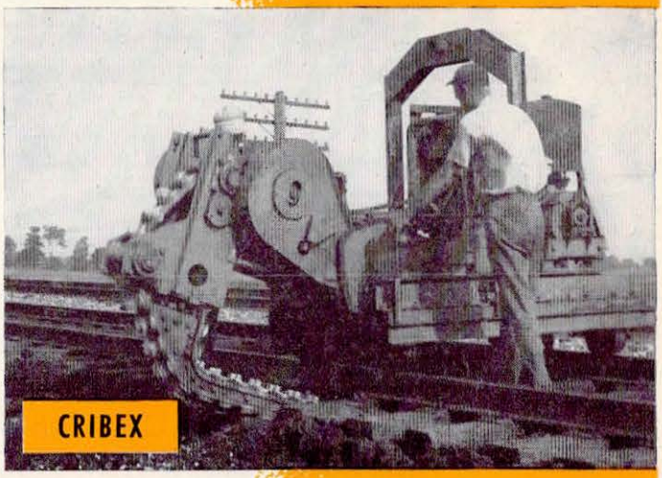
B

THE BUCKEYE STEEL CASTINGS COMPANY

New York, N. Y. Columbus, Ohio Chicago, Ill.

YOU CAN'T BEAT THE NORDBERG BALLAST RECONDITIONING "THREESOME"

FOR SPEED ECONOMY AND VERSATILITY



1. CRIBEX

Removes material contained in the cribs and deposits it beyond the ends of the ties. Leaves a smooth, uniformly-graded tie floor, completely emptying the crib without damage to ties or rail. **Proved in use in excavating over 3,500,000 cribs.**

2. BALLASTEX

Excavates ballast in the area between the tracks or in the shoulder and disposes it by either wasting to the side or feeding it to the SCREENEX for cleaning. Digs a uniform trench 42-in. wide, or any desired depth to a maximum of 30-in. below top of rail.

3. SCREENEX

Takes fouled, excavated ballast from BALLASTEX, passes this material over a vibrating Symons Rod Deck Screen and returns cleaned ballast to the track, intertrack, or shoulder in any desired proportions—wasting the screenings to the side beyond the shoulder.

● With these three outstanding Nordberg machines, you have a combination that can solve virtually *any* ballast reconditioning problem. And what's more . . . this versatile "threesome" will accomplish the job *faster* and at *less* cost.

The speed, economy and versatility of the CRIBEX . . . BALLASTEX . . . SCREENEX trio has been amply proved in service in every kind of ballast. Let us show you how these modern ballast reconditioning machines can save time and money for *you*.

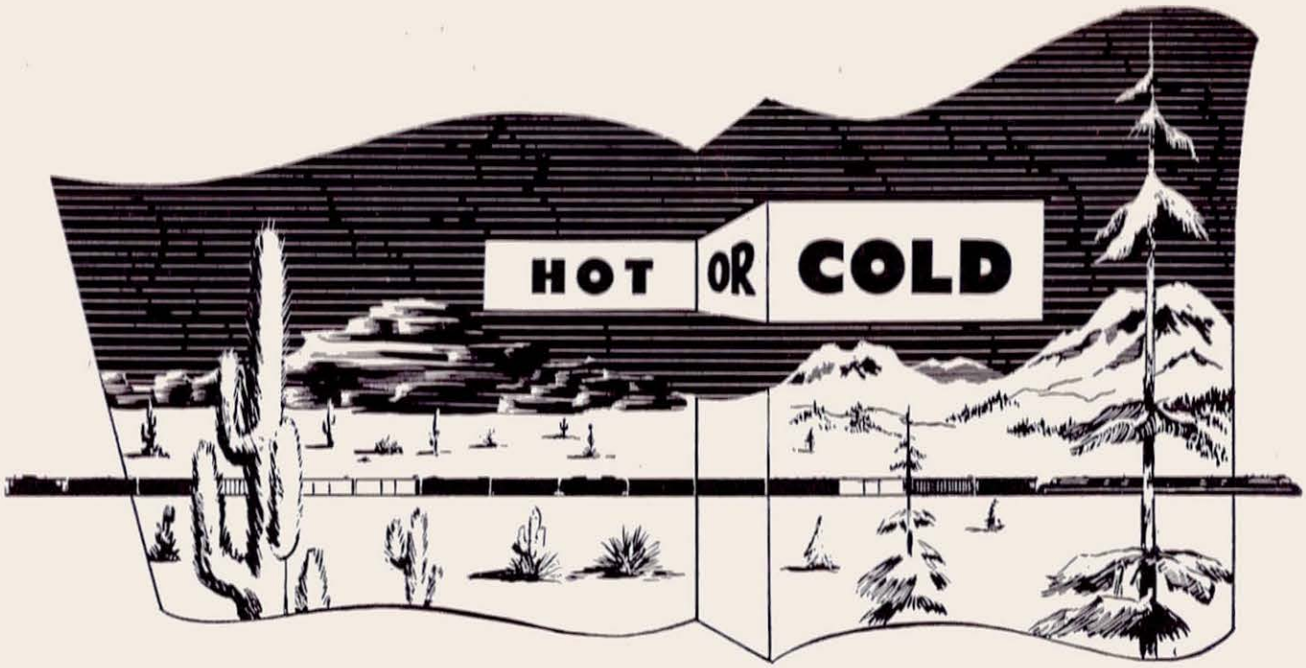
For full details, send for a copy of BULLETIN 174.

R751

Look to NORDBERG

. . . for continually improved TRACK MAINTENANCE MACHINERY
to do a Better, Faster Maintenance Job at Lower Cost

NORDBERG MFG. CO., Milwaukee 7, Wisconsin



Streamlite HAIRINSUL *IS ALWAYS EFFICIENT!*

The valuable perishables which modern refrigerator cars carry are fully protected against sudden and extreme temperature changes by efficient Streamlite Hairinsul.

Leading refrigerator car builders have been specifying all-hair insulation for nearly half a century—and they find today that Streamlite Hairinsul, with its 40% less weight, is the most efficient and economical.

Streamlite Hairinsul assures you all the advantages given at the right—and more besides. Write for complete data.

1 LOW CONDUCTIVITY. Thoroughly washed and sterilized, all-hair heat barrier. Rated conductivity—.25 btu per square foot, per hour, per degree F., per inch thick.

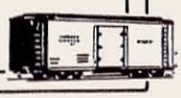
2 LIGHT WEIGHT. Advanced processing methods reduce weight of STREAMLITE HAIRINSUL by 40%.

3 PERMANENT. Does not disintegrate when wet, resists absorption. Will not shake down, is fire-resistant and odorless.

4 EASY TO INSTALL. Blankets may be applied to car wall in one piece, from sill to plate and from one side door to the other. Self-supporting in wall sections between fasteners.

5 COMPLETE RANGE. STREAMLITE HAIRINSUL is available ½" to 4" thick, up to 127" wide. Stitched on 5" or 10" centers between two layers of reinforced asphalt laminated paper. Other weights and facings are available.

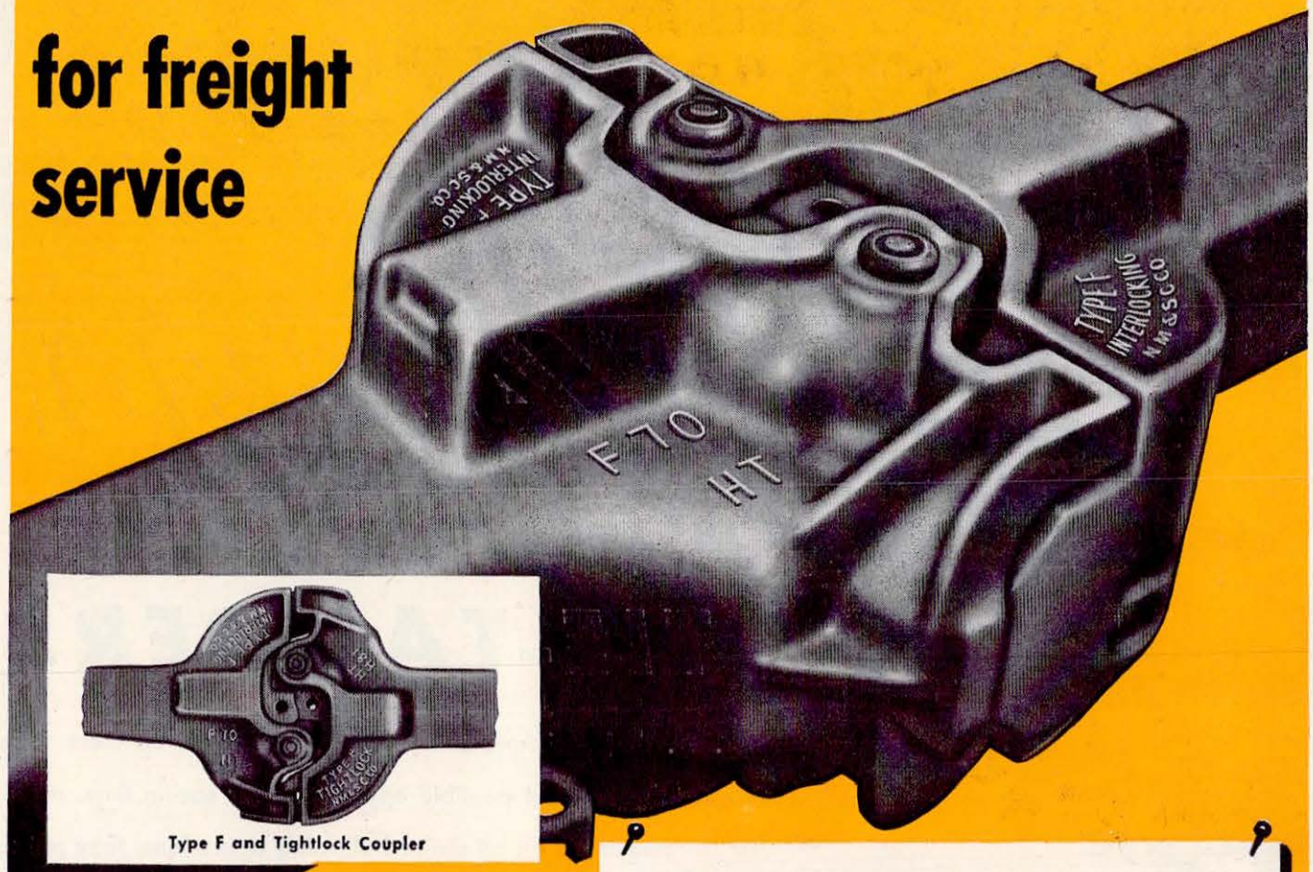
6 HIGH SALVAGE VALUE. The all-hair content does not deteriorate with age; therefor has high salvage value. No other type of insulation offers a comparable saving.



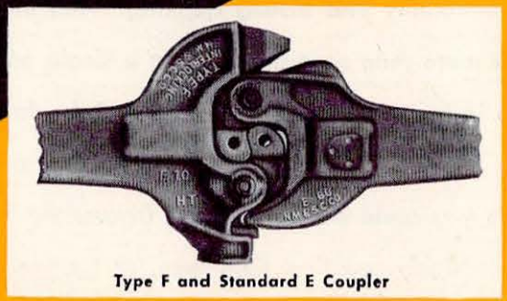
Dept. H-19, Merchandise Mart, Chicago 54, Ill.

NOW... for railroads' forward planning!

Type F INTERLOCKING COUPLER for freight service



Type F and Tightlock Coupler



Type F and Standard E Coupler

FIVE OF THE IMPORTANT FEATURES

1. **REDUCTION OF FREE SLACK AND INTERLOCKING.** Type F design with interlocking feature means considerably less free slack yet it meets all operating conditions of standard E Coupler.
2. **INTERCOUPLING.** Type F design can be used with any standard A. A. R. coupler.
3. **UTILITY.** Due to interlocking feature, mated F Couplers prevent vertical slipovers . . . resist climbing and overturning.
4. **SAFETY LEDGE.** Designed to support mated coupler in event of pullout.
5. **LOWER MAINTENANCE.** Less vertical movement and less free slack mean Type F Coupler contours hold within gage longer for lower maintenance cost.

Keeping pace with advanced thinking and planning in promoting design of the Type F Coupler, National is ready *now* for maximum production.

The well-recognized facilities of National—involving engineering design, research and quality controlled production—which have made National pre-eminent in the development of improved devices for railroads, continue to be available to meet demands for the Type F Coupler.

We are anxious to serve your programs for improved operation of rolling stock.

A-4538

NATIONAL MALLEABLE and STEEL CASTINGS COMPANY

Cleveland 6, Ohio

COUPLERS • TRUCKS • YOKES • DRAFT GEARS • JOURNAL BOXES AND LIDS

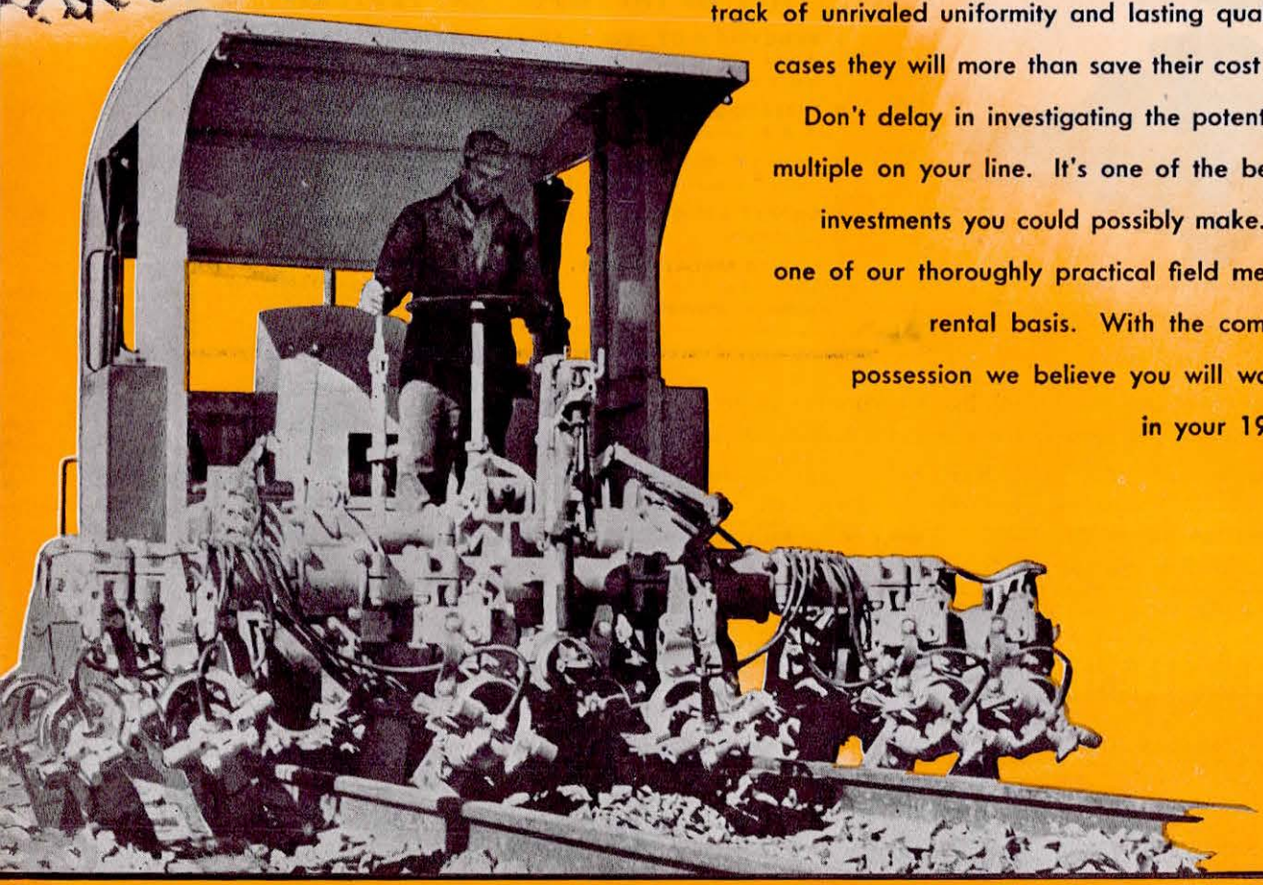
NATIONAL Products FOR TRANSPORTATION AND INDUSTRY

Est. 1868

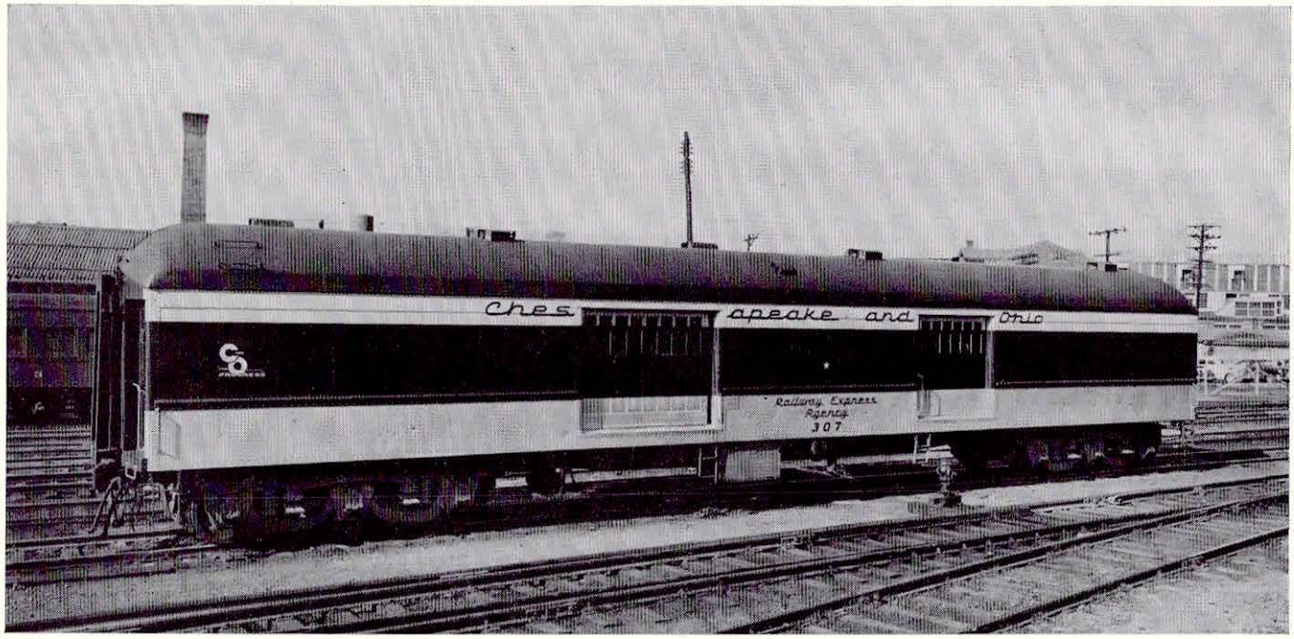
OVER 50 LEADING RAILROADS and CONTRACTORS

NOW USE JACKSON MULTIPLE TIE-TAMPERS!

. . . and each and every one is solidly sold on these facts: They offer the greatest possible opportunity for saving time, money and labor on all major ballasting operations; they put up track of unrivaled uniformity and lasting qualities. And in most cases they will more than save their cost in a single season. Don't delay in investigating the potentials of the Jackson multiple on your line. It's one of the best dividend-paying investments you could possibly make. Discuss them with one of our thoroughly practical field men, or try one on a rental basis. With the complete facts in your possession we believe you will want to include them in your 1952 appropriations.



ELECTRIC TAMPER & EQUIPMENT CO., LUDINGTON MICHIGAN



On Head-End Cars

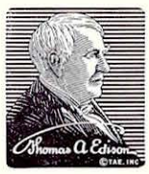
Their performance in head-end cars is a good, practical illustration of the dependability and trouble-free characteristics of EDISON Nickel-Iron-Alkaline Storage Batteries.

Head-end cars are subject to more off-line operation than other passenger-train cars, with the result that the batteries receive less regular maintenance. Yet EDISON batteries, as a general average, give the same long, trouble-free life in such cars as in cars regularly assigned to the same runs.

Among their numerous trouble-free characteristics is the fact that, after a period of discharge, no injury will result if EDISON batteries are not immediately recharged, as, for example, in an express car making an off-line delivery followed by a few days' layover. In such a case, the battery usually supplies lamp loads during the unloading operation and may not be recharged until after the layover. Such a stand will not injure an EDISON battery whether it has been partially discharged, fully discharged or overdischarged.

Freedom from trouble under practical operating conditions not only makes for ease of maintenance but also contributes to long life and overall economy of operation. Edison Storage Battery Division of Thomas A. Edison, Incorporated, West Orange, N. J. Thomas A. Edison of Canada, Limited, Montreal.

You can always rely on

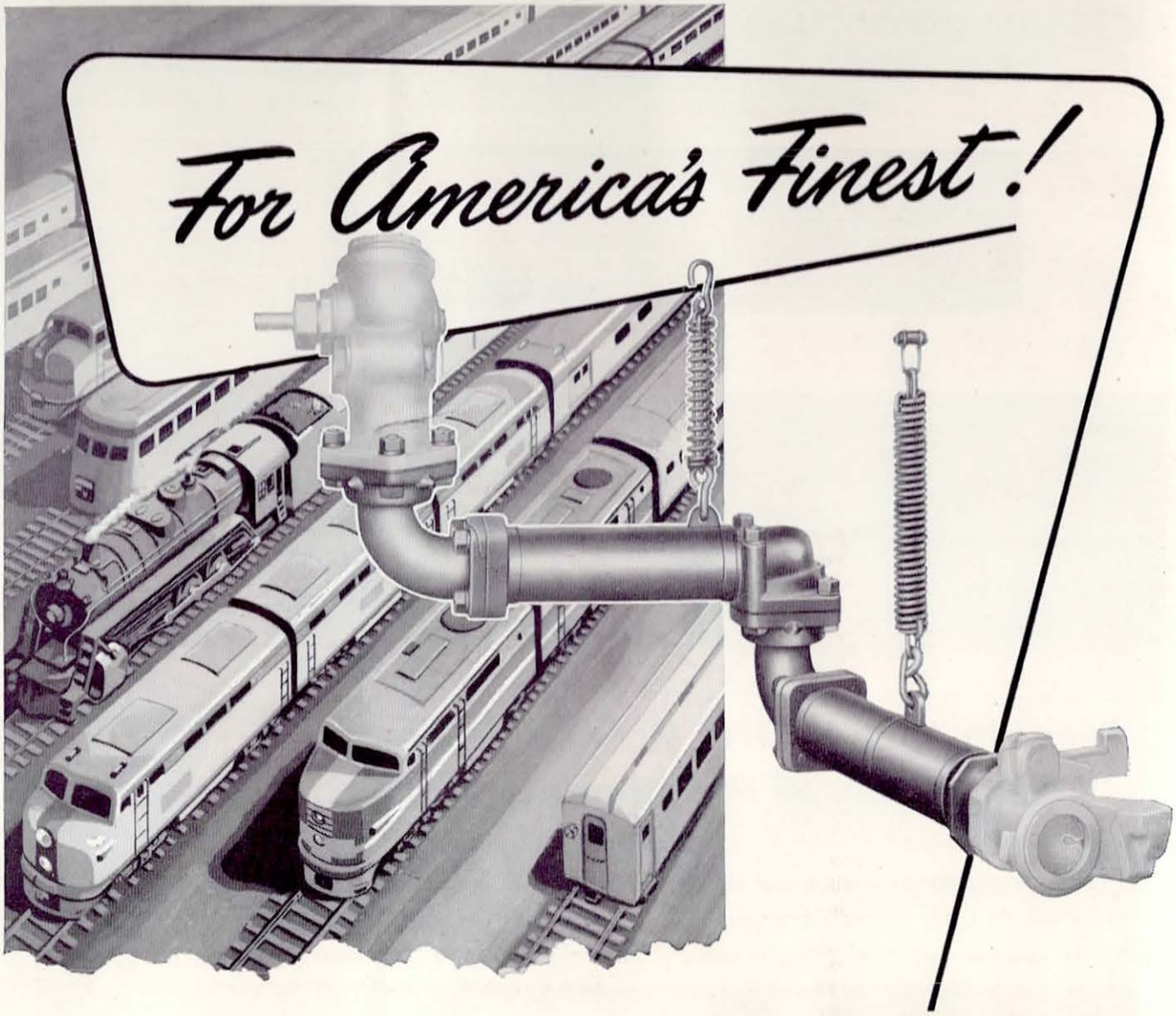


EDISON

Nickel • Iron • Alkaline

STORAGE BATTERIES

LIGHT-WEIGHT BATTERIES FOR LIGHT-WEIGHT CARS

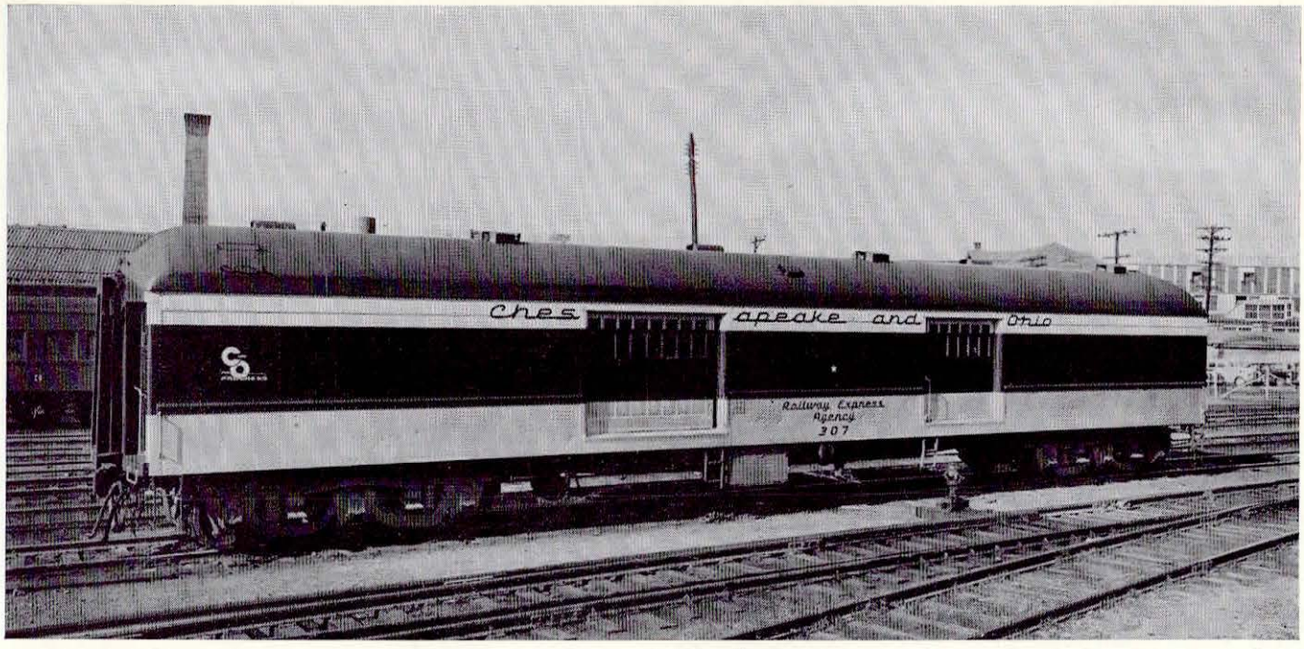


BARCO
STEAM HEAT CONNECTIONS
for
PASSENGER CARS DIESEL and STEAM LOCOMOTIVES

● *What characterizes America's finest trains?* For one thing, it's the use of finest possible equipment and fittings *throughout.* Barco Steam Heat Connections are used on *America's Finest Trains!*

There are many good reasons for using Barco Steam Heat Connections: Light weight welded steel construction reduces weight approximately 30% and at same time provides greatly increased steam capacity. Specially hardened alloy steel wearing parts, fitted with exclusive Barco gaskets, insure long, trouble-free service. Barco Connections have 50% fewer wearing parts. Simple construction means less maintenance, fewer parts to stock, easy installation. For complete information, write BARCO MANUFACTURING CO., 1800K Winnemac Ave., Chicago 40, Ill. In Canada: The Holden Co., Ltd., Montreal, Canada.

FREE ENTERPRISE—THE CORNERSTONE OF AMERICAN PROSPERITY



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You can always rely on

EDISON

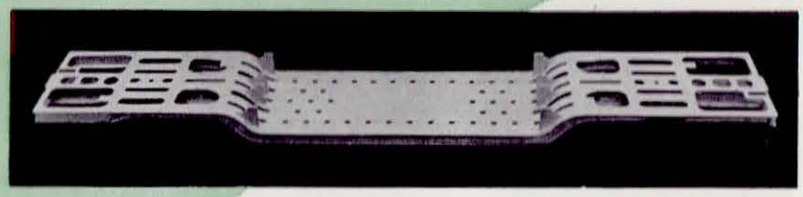
Nickel • Iron • Alkaline

STORAGE BATTERIES

LIGHT-WEIGHT BATTERIES FOR LIGHT-WEIGHT CARS

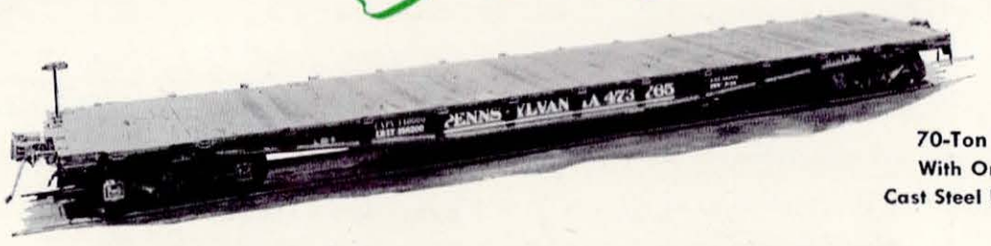
Heavy Duty Depressed Center Car with Commonwealth 6-wheel trucks

One-piece Cast Steel Underframe Designs for 90-, 125-, 137½-, and 175-ton capacity cars



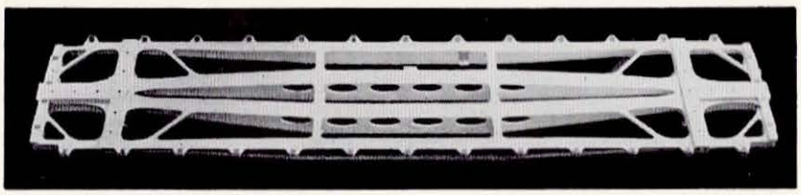
COMMONWEALTH ONE-

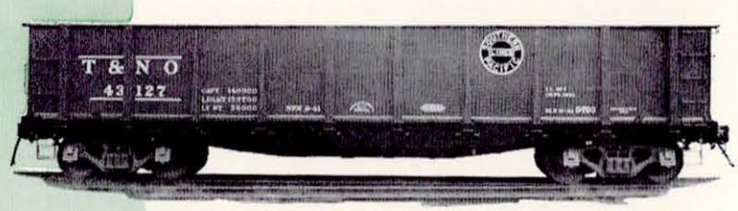
Designed For



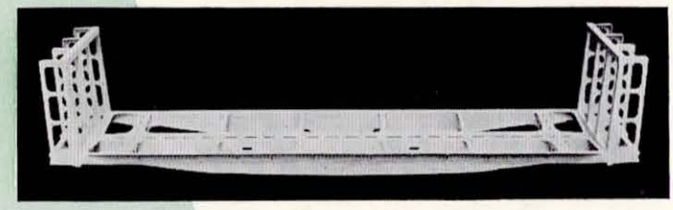
70-Ton Flat Car With One-piece Cast Steel Underframe

One-piece Cast Steel Underframe Designs for 50- and 70-ton capacity cars

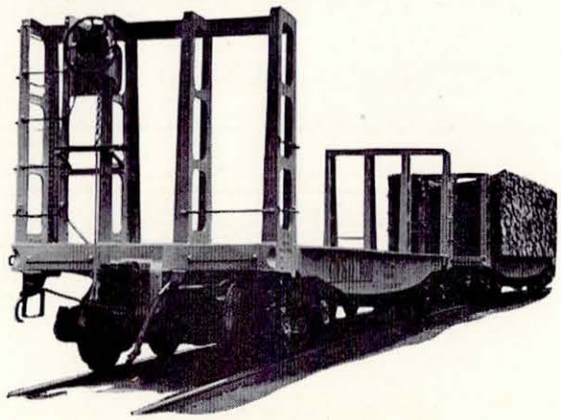




Sulphur Car with Cast Steel Underframe

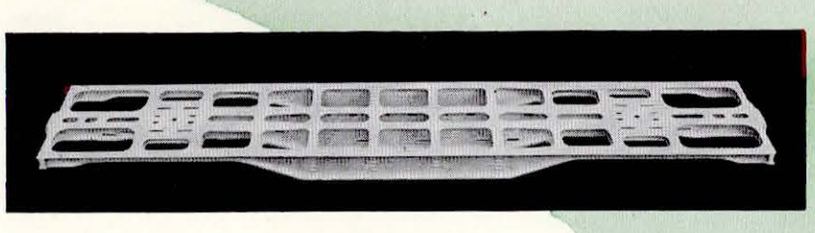


One-piece Cast Steel Underframe for Pulpwood Car with Cast Steel End Posts Applied



50-ton, 22 Cord Pulpwood Car with Cast Steel Underframe and End Posts

Heavy Duty Flat Car with Commonwealth 6-wheel Trucks



One-piece Cast Steel Underframe Designs for 125-, 200-, and 215-ton capacity cars

PIECE UNDERFRAMES
"Special Service" Freight Cars

Provide Longer Life, Greater Strength, Elimination of Maintenance Costs

COMMONWEALTH one-piece cast steel underframes offer many advantages for *all* special types of freight cars where maximum strength for extra heavy loads, unusual design or resistance to corrosion are important.

COMMONWEALTH underframes combine the elements of great strength, durability and simplicity. The one-piece cast steel construction eliminates all welded or riveted joints, rivets and bolts, and provides a smooth top surface for floor application.

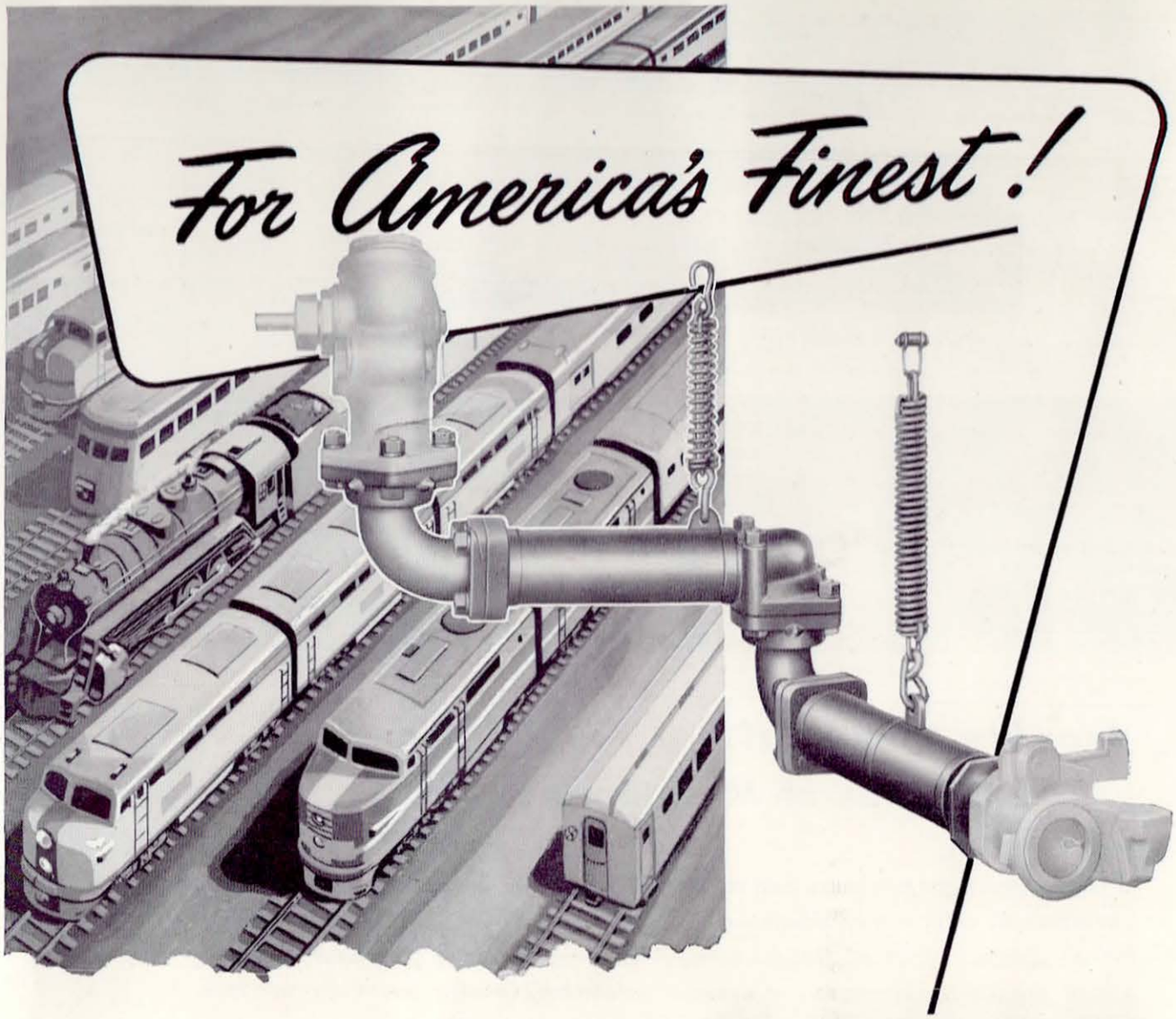
For depressed center cars and flat cars, cast steel construction permits minimum height from rail to loading floor. The distribution of metal where it is needed most, provides exceptional strength without increase in weight. For sulphur-carrying cars, cast steel's resistance to rust or corrosion is especially important.

For pulpwood cars, cast steel underframes and end posts also provide larger capacity, easier loading and maintenance-free service. In all cases *upkeep costs are eliminated, longer life assured.*

For every type of "special service" freight cars, including well cars, depressed center cars, flat cars, sulphur-carrying cars, ore cars and others, specify COMMONWEALTH Underframes.

GENERAL STEEL CASTINGS

GRANITE CITY, ILL. • EDDYSTONE, PA.



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FREE ENTERPRISE—THE CORNERSTONE OF AMERICAN PROSPERITY

In a hurry for smooth-riding freight cars? Get them now!

INSTALL A.S.F. RIDE-CONTROL® PACKAGES

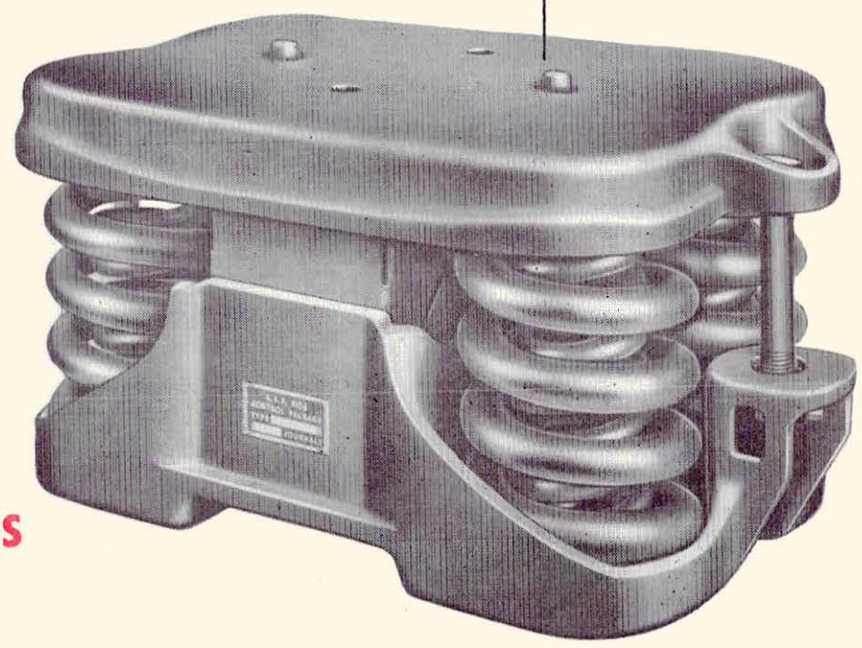
You can enjoy the advantages and savings of longer spring travel *now*, by installing the A.S.F. Ride-Control Package in your present rolling stock.

The Ride-Control Package is a complete spring group with built-in 3-way friction control (the famous A.S.F. Ride-Control principle). The unit comes completely assembled, is installed as a unit in place of the present spring group.

This Package gives 2½ to 3 inches of controlled spring travel, in place of the AAR-standard 1-9/16 to 1⅝ inches. Separate Ride-Control springs provide constant pressure on hardened friction surfaces to control movement in all three directions.

Cost is low—about $160 per car set—but it means big savings. Ride-Control helps protect lading and cut claims. It helps protect rolling stock and cut repair costs. It helps protect roadbed and cut track maintenance. You can't lose! And you can have it now!

Talk it over with your A.S.F. representative and ask him for all the details; or write American Steel Foundries, 400 North Michigan Ave., Chicago 11, Illinois.



AMERICAN STEEL FOUNDRIES

mint mark of ⬡ *fine products*

Tested Every Day!

Douglas fir plywood is tested daily. Requirements are tough; you'll find them in U.S. Commercial Standard CS45-48. Random samples of current panel production are given exhaustive laboratory tests. Others are subjected to prolonged field-exposure studies. They ***must*** pass. For this is the plywood industry's quality inspection program—one important reason why plywood is preferred for hundreds of railroad jobs. But plywood is ***more*** than laboratory-tested. It has been tested by time and use alike. ***Tested*** by over 15 years railroad work. ***Tested*** in the building or re-building of over 100,000 railroad cars. ***Tested*** in every grueling building and maintenance work. ***Tested*** by Missouri Pacific Lines, Rock Island and Northern Pacific. By North American, Rio Grande and Morrell Refrigerator Line. Yes, plywood has been tried and tested by these and many more. Tried, tested, ***proved.***

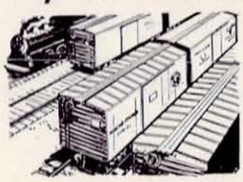
Put These Plywood Advantages To Work For You!

Douglas fir plywood is real wood in large, light, strong panels "performance-engineered" to bring you:

- ✓ **Great strength. Rigidity. Dimensional stability.**
- ✓ **A strength-weight ratio greater than steel.**
- ✓ **Split-proof, puncture-proof.**
- ✓ **Tremendous resistance to impact.**
- ✓ **Ease of handling. Workability. Versatility of application.**
- ✓ **Large panels; stock sizes and thicknesses.**
- ✓ **Two types*: Waterproof-bond Exterior; moisture-resistant Interior. Several appearance grades within each type.**

*Two types: (1) 100% waterproof-bond EXTERIOR made for outdoor and marine uses; EXT-DFPA® grade-trademark is positive identification. (2) Moisture-resistant INTERIOR for uses not permanently exposed to water or weather. Within each type are several appearance grades to meet exact job needs. Produced and inspected in strict accord with rigid U. S. Commercial Standards.

Plywood Is Performance-Tested For All These Jobs

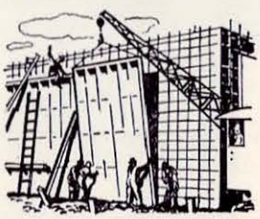


CAR CONSTRUCTION

Siding and lining reefers; bunkers and bulkheads in reefers. Siding and lining box cars, work cars and other rolling stock. Underlayment for floor coverings, luggage racks and interior details in passenger cars.

BUILDING AND MAINTENANCE

Siding, interior paneling, movable partitions and cabinet work . . . subflooring, wall and roof sheathing. Station booths and counters. Signs and signal boards. Parts bins. Pallets. Track shims. Portable buildings.



CONCRETE FORM WORK

For stations, shops and maintenance buildings . . . bridges, aqueducts and other concrete jobs . . . re-usable plywood concrete form panels offer these advantages: smooth, fin-free concrete; time and labor savings through simplified form construction; low cost-per-use.

For complete plywood data, write (U.S.A. only) Douglas Fir Plywood Association, Tacoma Bldg., Tacoma 2, Wash. Field offices: 848 Daily News Bldg., Chicago 6; 1232 Shoreham Bldg., Washington 5, D. C.; 500 Fifth Ave., New York City 18.

Douglas Fir Plywood

AMERICA'S BUSIEST BUILDING AND INDUSTRIAL MATERIAL

for track at its level best!

. . . at the Lowest Cost

Working for the Jersey Central—the Pullman-Standard Power Ballaster, with J. W. Rementer, Track Supervisor, Mauch Chunk, Pa.

Take it from the Jersey Central

this Power Ballaster's doing a job!

Mr. J. W. Rementer has summed it up, from his own observation and from careful records of performance on the Jersey Central. Read what he says:

> **"We use Pullman-Standard Power Ballasters because we have found them to be most efficient. Especially important is their ability to tamp all types of ballast, *from cinders to large traprock,* and to give *full compaction* while maintaining a *very high production rate.* We find that the Power Ballaster can handle a surface-smoothing job or a high lift with equal facility."**

Studies of Power Ballaster performance on the Jersey Central are available to show the conclusive type of evidence on which Mr. Rementer's verdict is based. Operating records made on other railroads are also on open file. The Pullman-Standard representative will be glad to show you this comprehensive data.

You should see it. We believe it will convince you that, no matter what tamping job you may want to do, the Power Ballaster will do it better, at lower cost, than any other tamper in existence today.

POWER BALLASTER PRODUCTS DIVISION

Pullman-Standard

CAR MANUFACTURING COMPANY

79 East Adams Street, Chicago 3, Illinois

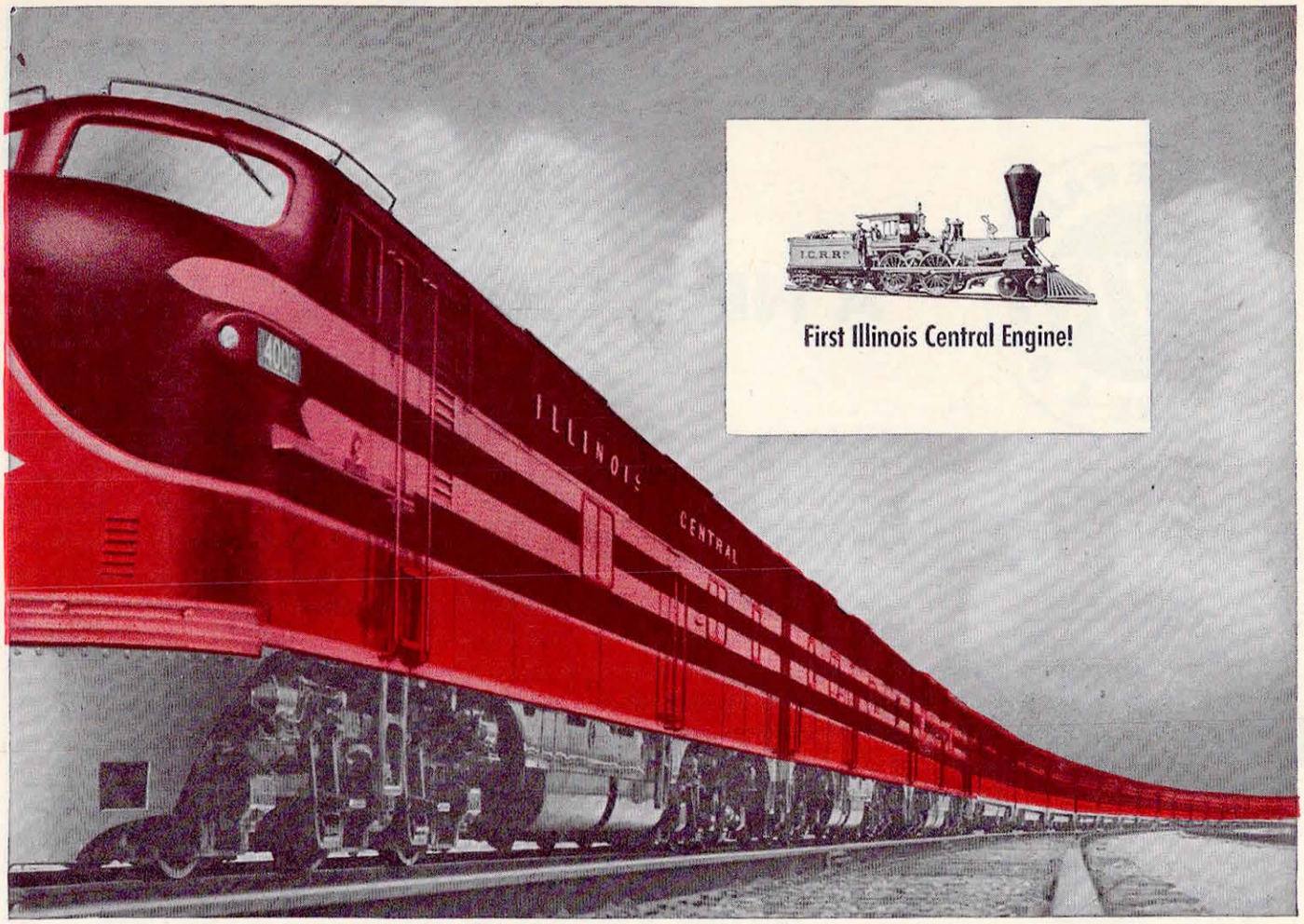
BIRMINGHAM 3, 1004 First National Building • CLEVELAND 15, 907 Midland Building • NEW YORK 17, 52 Vanderbilt Avenue • PITTSBURGH 19, 1115 Gulf Building
WASHINGTON 6, D. C., 1025 Connecticut Ave., N. W. • SAN FRANCISCO 4, 2910 Russ Building
CANADA: The Holden Co., Ltd. • Montreal 3, 614 St. James St. W. • Toronto, 128 Simcoe St. • Winnipeg, 150 Princess St. • Vancouver, 769 Powell St.

For 100 Years- the Main Line of Mid-America!

ILLINOIS CENTRAL *uses* **SINCLAIR**

Just one hundred years ago a great pioneering feat began — the building of the Illinois Central Railroad. In the years that followed, it has played a major part in opening up the Mid-West. Ever since then, this progressive railroad has continued to grow and help our nation to grow.

Today the Illinois Central is the nation's major north-and-south railroad, its 6600 miles of track linking the Great Lakes to the Gulf of Mexico . . . truly the Main Line of Mid-America.
The Illinois Central super streamliners and fast freights rolling through rich



lubricants!

Mid-America use numerous Sinclair Lubricants, including Gascon Oil, the choice of more than 60 U. S. railroads. To get the utmost in performance from your Diesels, take a tip from the nation's top railroads —use Sinclair Gascon® Oils.

SINCLAIR RAILROAD LUBRICANTS

Sinclair Refining Company
Railway Sales • New York
Chicago • St. Louis • Houston

Federal JOINS TO PROVIDE U. S. A NEW, CHALLENGING PROCUREMENT

A New, Nation-wide Source of Supply for

Multiplex and Terminating Equipment

RF Terminal Equipment

FEDERAL TELEPHONE AND RADIO CORPORATION, associate of IT&T, has appointed Graybar Electric Company, Inc., as national distributor of its communications and signaling equipment for the railroad industry.

Uniting the complete facilities of these strong, pioneer companies gives a *third* dimension to the area of supply for railroads . . . provides a new and dependable source of equipment and service. Graybar, long a major supplier of electrical equipment, serves America's railroads from coast to coast, through offices and warehouses in 105 cities and a staff of 65 railroad specialists—the largest group of its kind in the industry.

As distributor for Federal, Graybar represents one of the nation's oldest leaders in the manufacture of communications equipment. Founded over 40

PTM MICROWAVE

Radio Relay Systems

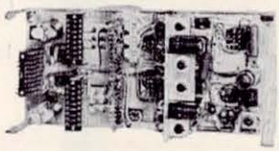
Simultaneously provide all communication and signaling facilities, under all weather conditions.

Designed to connect with branch line circuits and way stations at repeater locations.

Reduce heavy-pole-line maintenance, leased line expense and storm damage replacement. Tie-in with train radio-systems.

CARRIER SYSTEMS

Telephone and Telegraph



FTR 9-H-2
Medium-Haul Carrier Telephone Equipment

Medium and long-haul systems up to 3 channels, with optional pilot regulators and repeaters.

18-channel VF telegraph systems and 1 to 6-channel speech-plus-duplex facilities . . . applicable to CTC signaling and telemetering.

FTR 9-E-1
Multichannel Carrier Telegraph Equipment

Federal Telephone and Radio Corporation

An Associate of International Telephone and Telegraph Corporation

100 KINGSLAND ROAD, CLIFTON, N. J.

In Canada: Federal Electric Manufacturing Company, Ltd., Montreal, P.Q.

Export Distributors: International Standard Electric Corp., 67 Broad St., N.Y.

Federal Telecommunication Laboratories, Nutley, N.J., and Federal's modern manufacturing plant, Clifton, N.J.

WITH GraybaR

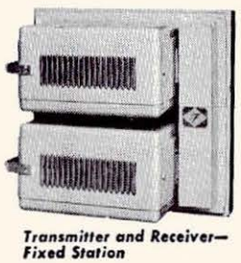
RAILROADS WITH APPROACH TO THEIR PROBLEMS...*and*

Communications and Signaling Equipment

years ago, Federal has an outstanding record as a contributor of basic electronic equipments, techniques and components.

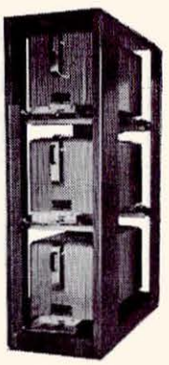
The Federal-Graybar line includes PTM microwave radio relay systems, carrier telephone and telegraph systems, telephone equipment, railroad and vehicular mobile radio, Sequence Switch Interlocking for automatic signaling, railroad radiotelephone and passenger entertainment distribution systems and battery chargers. New products will be added as they are developed by Federal and IT&T's world-wide research facilities.

As a source of supply for high-quality communications and signaling equipment the Federal-Graybar line comprises one of the largest and most important available to the American railroad industry.



Transmitter and Receiver—Fixed Station

Remote Control Unit—Fixed Station



Vertical Rack—Mobile Unit. Transmitter, Receiver and Power Supply

TELEPHONE EQUIPMENT

Systems and Apparatus

Federal's complete line of telephone equipment includes: dial switching and automatic intercommunication systems; attendants and other special switchboards; dial speed, traffic, and test sets; telephone instruments and special equipment to meet telephone communication requirements of the railroad industry.

Intercommunication Equipment

SELENIUM RECTIFIERS

Battery Chargers and Eliminators

For a wide range of current and voltage capacities for practically all requirements, in both package and rack-mounted types. Silent, automatic operation.

Utilize compact, long-life Selenium Rectifiers. Two-rate or constant potential types.

TRAIN RADIO SYSTEMS

Fixed and Mobile

Dependable radiotelephone communication for mainlines, yards and terminals . . . designed especially for railroad service by Federal-Farnsworth.

Speed traffic, increase equipment availability, eliminate delays, lower operating costs, and provide greater safety in railroad operation.

Graybar Electric Company, Incorporated

Graybar's nation-wide network of more than 100 offices and warehouses assures you of convenient service no matter where you are located.

The 19 key cities where Graybar Representatives are located

Atlanta, Ga.	Cleveland, Ohio	Kansas City, Mo.	Pittsburgh, Pa.
Boston, Mass.	Dallas, Texas	Long Island City, N.Y.	Richmond, Va.
Chicago, Ill.	Detroit, Mich.	Los Angeles, Calif.	San Francisco, Calif.
Cincinnati, Ohio	Houston, Texas	Minneapolis, Minn.	Seattle, Wash.
	Jacksonville, Fla.	Philadelphia, Pa.	St. Louis, Mo.

TURBO-GENERATORS GYRALITES HEADLIGHTS LOCOMOTIVE SIGNAL LIGHTS

PYLE RAILROAD

. . for Quality

ON EQUIPMENT

for DIESEL LOCOMOTIVES

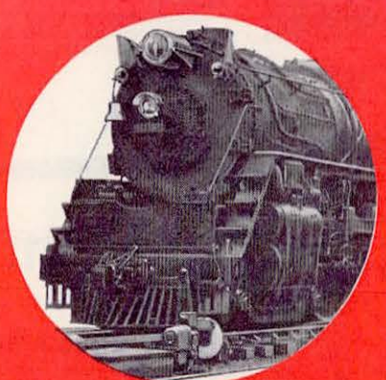
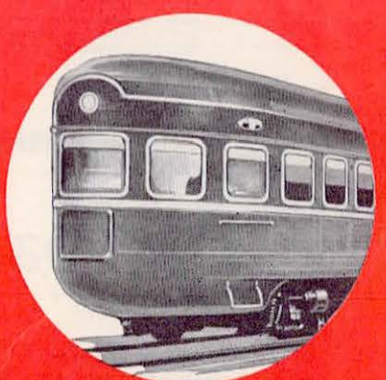
GYRALITES
HEADLIGHTS
BACK-UP LIGHTS
NUMBER LIGHTS
CLASSIFICATION LIGHTS
MARKER LIGHTS
GAUGE LIGHTS
STEP LIGHTS
VAPORTIGHT LIGHTING FIXTURES
MOTOR-GENERATORS FOR TRAIN CONTROL SYSTEMS
DYNAMOTORS
PYLET CONDUIT FITTINGS
JUNCTION PYLETS
LIGHT SWITCHES
CORD & CABLE GRIPS
CONDUIT UNIONS
FLEXIBLE CONDUIT COUPLINGS
PLUGS & RECEPTACLES
For: Battery Charging
Jacket Water Heater
A. C. Standby Lighting
Steam Boiler Control
Marker Lights
Portable Hand Lamps
Journal Alarm
TRAINLINE JUMPERS AND RECEPTACLES
For: Control Circuits
Dynamic Braking
Electro Pneumatic Brake
Battery Circuit
Communication
A. C. Power Circuit
Train Control

for STEAM LOCOMOTIVES

TURBO-GENERATORS
TURBO-ALTERNATORS FOR RADIO COMMUNICATION AND LIGHTING SYSTEMS
TURBINES FOR FEED WATER PUMPS
HEAD-END LIGHTING SYSTEMS
GYRALITES
HEADLIGHTS
BACK-UP LIGHTS
NUMBER LIGHTS
CLASSIFICATION LIGHTS
MARKER LIGHTS
GAUGE LIGHTS
STEP LIGHTS
ENGINEER'S LIGHT
DECK LIGHTS
STACK LIGHTS
WATERHOLE LIGHTS
TRAILER LIGHTS
RUNNING GEAR LIGHTS
PORTABLE HAND LAMPS
PLUGS & RECEPTACLES
HEADLIGHT SWITCHES
LIGHT SWITCHES
FUSE BOXES
TERMINAL BOXES
JUNCTION BOXES
HANDRAIL PYLETS
CAB LIGHT CONNECTION FITTINGS
FLEXIBLE CONDUIT COUPLINGS
CORD AND CABLE GRIPS
CONDUIT UNIONS

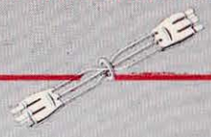
for PASSENGER CARS

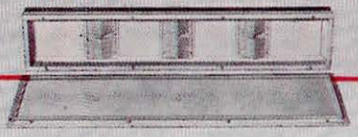
GYRALITES
BACK-UP LIGHTS
MARKER LIGHTS
TRACK INSPECTION LIGHTS
STEP LIGHTS
MAIL CAR DOOR LIGHTS
VESTIBULE LIGHTS
AISLE LIGHTS
JUNCTION & PULL BOXES
FAN CONTROL SWITCHES
LIGHT CONTROL SWITCHES
BATTERY FUSE BOXES
TERMINAL BOXES
FIXTURE FITTINGS
CORD AND CABLE GRIPS
CONDUIT UNIONS
TRAINLINE JUMPERS AND RECEPTACLES
For: Battery Circuit
Electro Pneumatic Brake
Communication and Public Address Circuits
Head-end Lighting
A. C. Power Circuit
PLUGS & RECEPTACLES
For: Battery Charging Standby
A. C. Standby
Gyralite Service
Marker Light Service
Back-up Light Service
Journal Alarm System
Anti-Wheel Slide Devices

Over fifty years of specialized experience in the design and manufacture of railway electrical equipment

FLOODLIGHTS | PLUGS AND RECEPTACLES | TRAINWIRE CONNECTORS | CONDUIT FITTINGS | MULTI-VENT AIR DIFFUSING PANELS





PRODUCTS

Durability and Performance

AND FIXED PROPERTIES

for FREIGHT CARS & TERMINALS

ANCHORLITES

PORTABLE HAND LAMPS

PLUGS AND RECEPTACLES

For: Refrigeration Standby Service

Truck Battery Charging

Portable Hand Lamps

CONDUIT FITTINGS

LIGHTING FIXTURES

for YARDS & TERMINALS

FLOODLIGHTS

GYRALITES

VAPORTIGHT LIGHTING FIXTURES

PORTABLE HAND LAMPS

PLUGS AND RECEPTACLES

For: A. C. Standby

Battery Charging Standby

Portable Hand Lamps

Portable Tools

Portable Battery Chargers

Portable Welders

Portable Iceing Machines

Floodlight Connections

Pre-Cooling Equipment

SAFETY SWITCHES

CIRCUIT BREAKERS

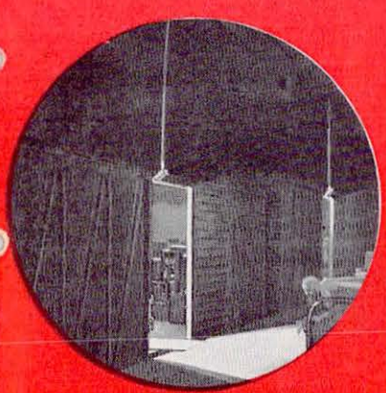
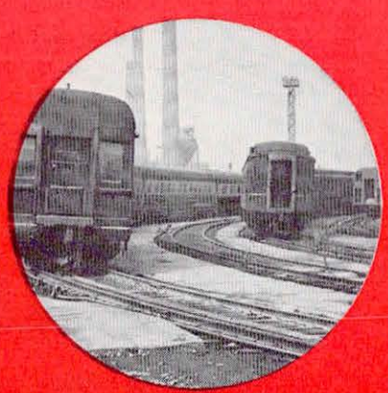
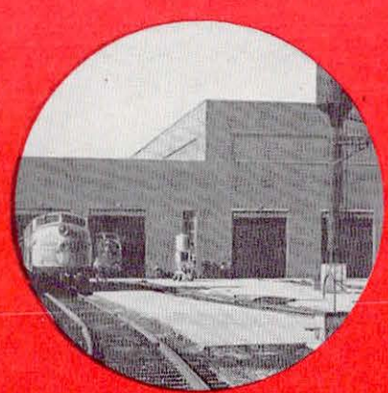
FUSE PANEL BOXES

JUNCTION & PULL BOXES

CONDUIT FITTINGS

for SHOPS, ELEVATORS & OFFICES

FLOODLIGHTS
PIT LIGHTS
EXPLOSION-PROOF LIGHTING FIXTURES
DUST-TIGHT LIGHTING FIXTURES
VAPORTIGHT LIGHTING FIXTURES
REFLECTOR FIXTURES
FIXTURE HANGERS
PORTABLE HAND LAMPS
ANCHORLITES
SAFETY SWITCHES
CIRCUIT BREAKERS
FUSE BOXES
JUNCTION & PULL BOXES
EXPLOSION-PROOF PYLETS
PYLETS AND COVERS
CORD & CABLE GRIPS
CONDUIT UNIONS
CONDUIT FITTINGS
PLUGS AND RECEPTACLES
For: Portable Tools
Portable Generators
Portable Handlamps
Portable Welders
Portable Rivet Heaters
Floodlight Connections
Hazardous Locations
TURBO-GENERATORS
TURBO ALTERNATORS
STEAM TURBINES
For: Pumps, Blowers, Stokers
MULTI-VENT AIR DISTRIBUTION PANELS
For Heating, Ventilating & Air Conditioning
In: City Ticket Offices, Stations, General Offices & Buildings

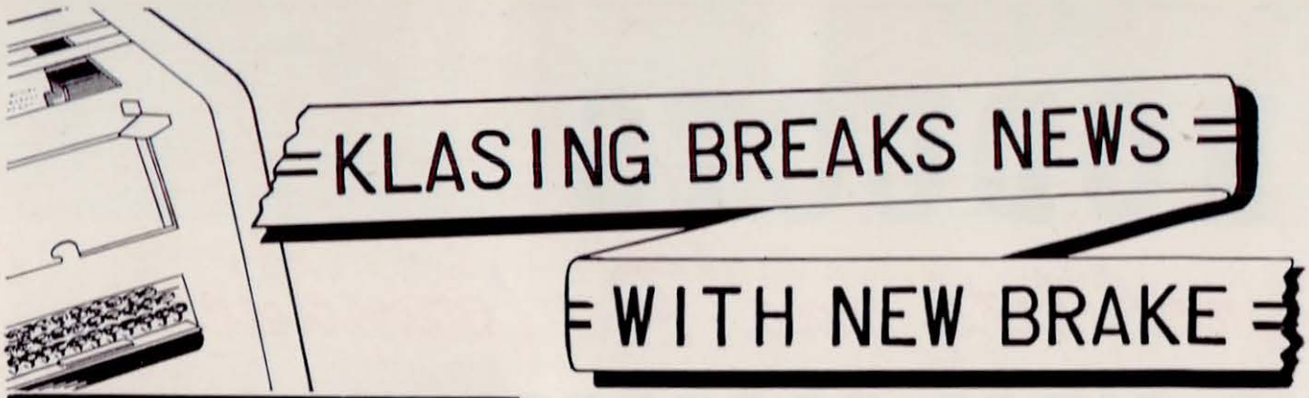




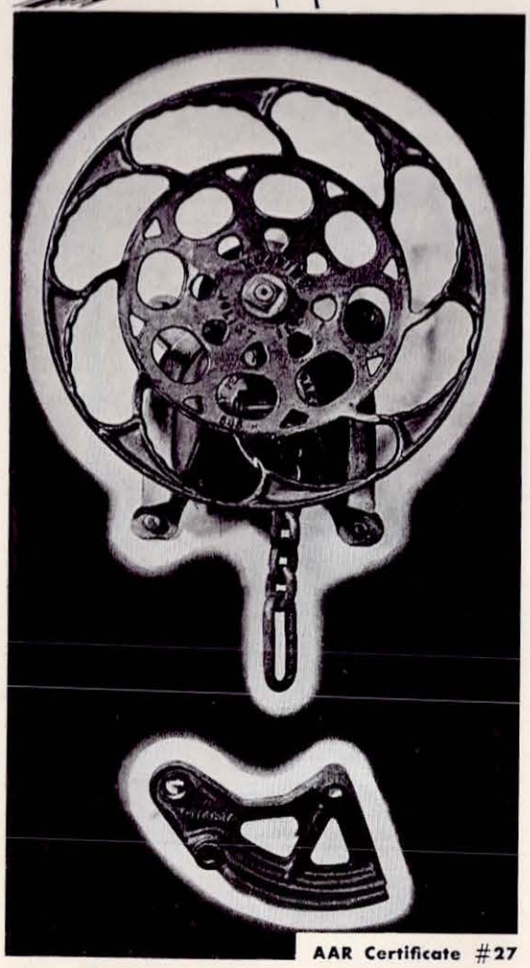
THE PYLE-NATIONAL COMPANY

1356 North Kostner Avenue • • • Chicago 51, Illinois

BRANCH OFFICES AND AGENTS in principal cities of the United States
EXPORT DEPARTMENT: International Railway Supply Co., 30 Church St., New York
CANADIAN AGENT: The Holden Co., Ltd., Montreal, Toronto, Winnipeg, Vancouver

SINCE 1897





AAR Certificate #27

The "POWER-MATIC"

Klasing's Non-spin Wheel Brake*

The "POWER-MATIC" is another leading step in railroad safety by the Klasing Hand Brake Company, pioneer in the field of geared hand brakes. It is a completely redesigned non-spin hand brake thoroughly tested and approved by the A.A.R. to guarantee compliance with specifications and safety requirements. The "POWER-MATIC" combines rugged design, ease of operation and maximum efficiency in a really safe wheel-type hand brake.

THESE FEATURES

- Non-spin
- Full-graduated release
- Quick take-up
- Operates completely with wheel
  (No levers for release)
- Easily released under any power
- Convenient hand grip for take-up or release

*Patent Pending

MAIN DIVISIONAL REPRESENTATION

Walter E. Day, 112 Market St., San Francisco 11, Calif.

E. H. Weigman, Railway Supply Co., 310 S. Michigan Ave., Chicago 4, Ill.

P. W. Specialties Corp., 79 E. Adam St., Chicago 3, Ill.

S. W. Sargent, 1381 Broad St. Station Building, Philadelphia 3, Penn.

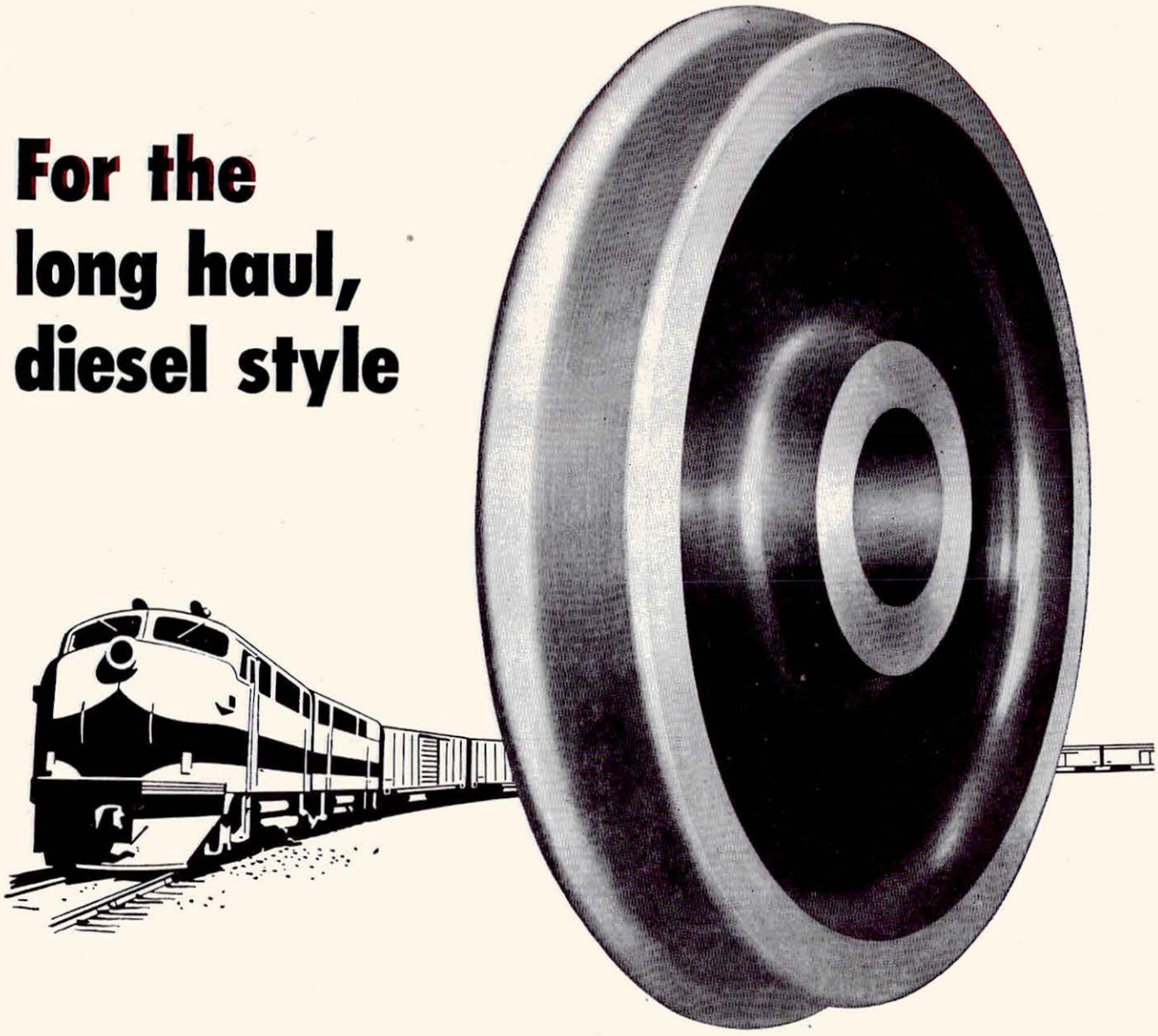
H. W. Stahl, Suite 1736, 42 Broadway, New York 4, N. Y.

KLASING
HAND BRAKE COMPANY

"Pioneers of Geared Hand Brakes"

14 Henderson Avenue Joliet, Illinois

For the long haul, diesel style



The familiar chug-chug of the iron horse is gradually giving way to the smooth purr of the diesel, and this of course is a sign of our times. The success of the diesel locomotive is a trend of great significance both to the railway industry and to manufacturers of railway equipment.

Take wheels, for instance. Obviously, wheels for diesels are a specialty in themselves. They must be superstrong, tough, and long-wearing. They must be of the same high quality as the thoroughbreds they carry.

Whenever you purchase a Bethlehem wrought-steel wheel for diesel service, you are purchasing a wheel with all these qualifications . . . for it is built with a craftsmanship and a sense of responsibility that cannot be surpassed anywhere.

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.

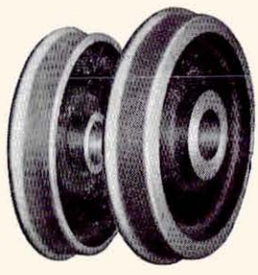
On the Pacific Coast Bethlehem products are sold by Bethlehem Pacific Coast Steel Corporation. *Export Distributor:* Bethlehem Steel Export Corporation

BETHLEHEM STEEL

BETHLEHEM WROUGHT-STEEL WHEELS

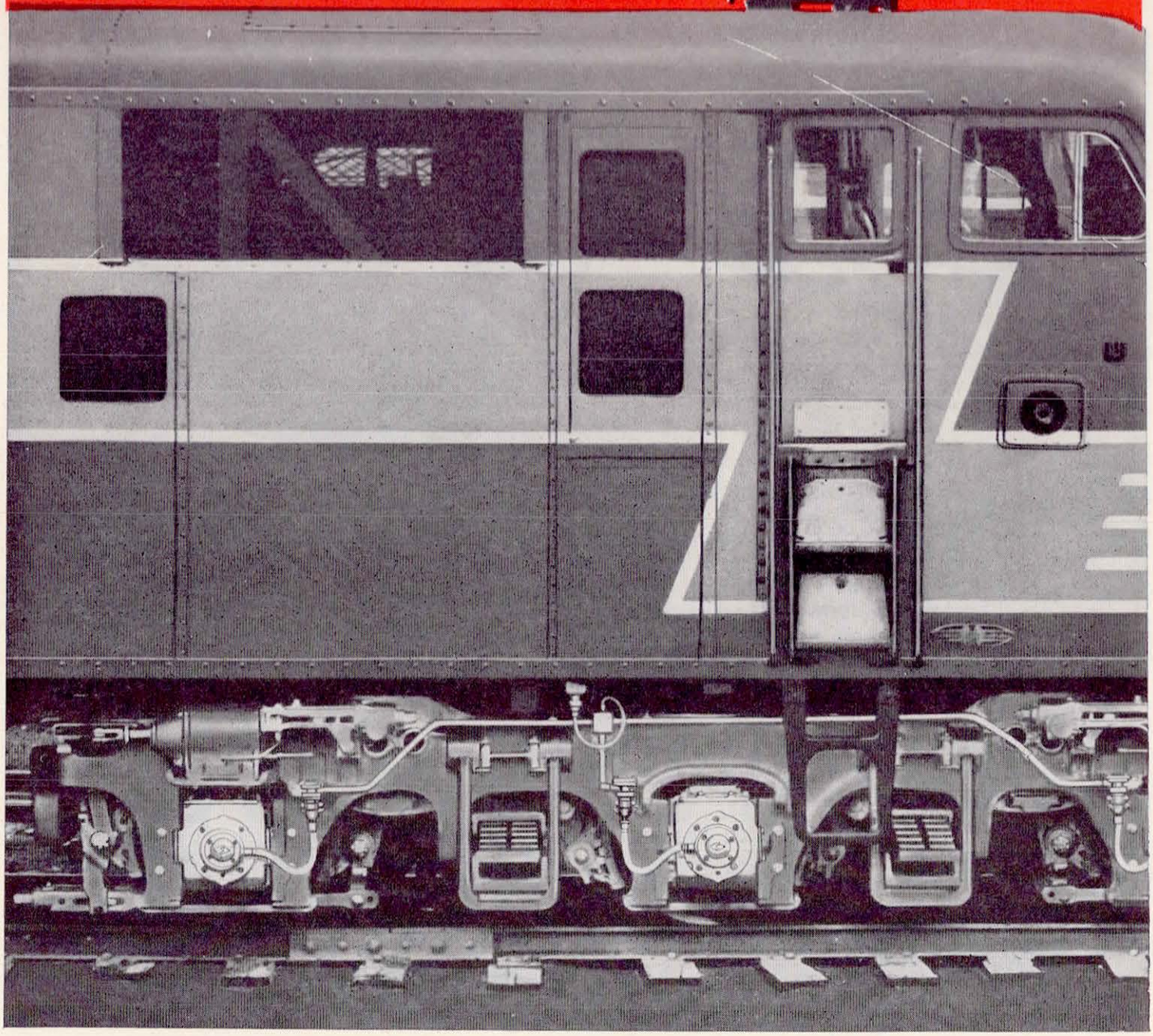
COMPANIONS TO BETHLEHEM FORGED-STEEL AXLES

Freight and passenger wheels, as well as those for diesels, have long been standard Bethlehem items. Bethlehem's experience in the wheelmaking art goes back more than a quarter-century.



for Diesel Locomotives...

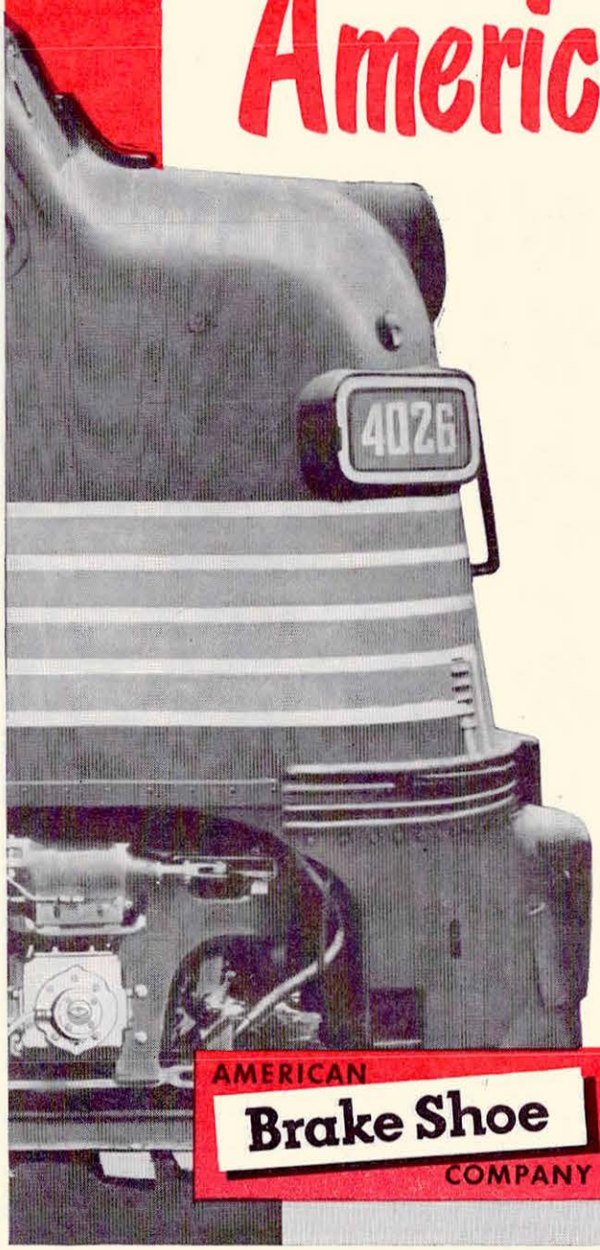
PROTECT AGAINST WHEEL SPIN...



WHEEL SLIDE...WHEEL LOCK-UP

3 in 1

American Brake Shoe Controller



The American Brake Shoe Controller, proven through years of dependable service on high-speed passenger car equipment, is now adapted to give 3 in 1 wheel protection on Diesel Locomotives.

The American Brake Shoe 3 in 1 Controller:

(1) Detects and corrects spin promptly at all speeds.
(2) Detects and corrects sliding during braking.
(3) Detects and warns if wheels become locked.

Write today for full information. The American Brake Shoe Company, 230 Park Avenue, New York 17, N. Y.

AMERICAN Brake Shoe COMPANY

BRAKE SHOE AND CASTINGS DIVISION

9416

NICKEL PLATE
STEAM POWER

is kept ***DEPENDABLE,***
maintained ***ECONOMICALLY***
and operated ***SAFELY*** with

HOLLOW *Flexible* STAYBOLTS

FLANNERY MANUFACTURING COMPANY
BRIDGEVILLE, PENNSYLVANIA

FREEDOM WHEELS

Users' experience certifies Freedom Wheels as the most successful means of suppressing or eliminating thermal cracking under the unusually severe braking conditions in today's high speed operations.

Over 500,000 in service. Ask a user about Freedom Wheels' high-speed, severe-braking performance.

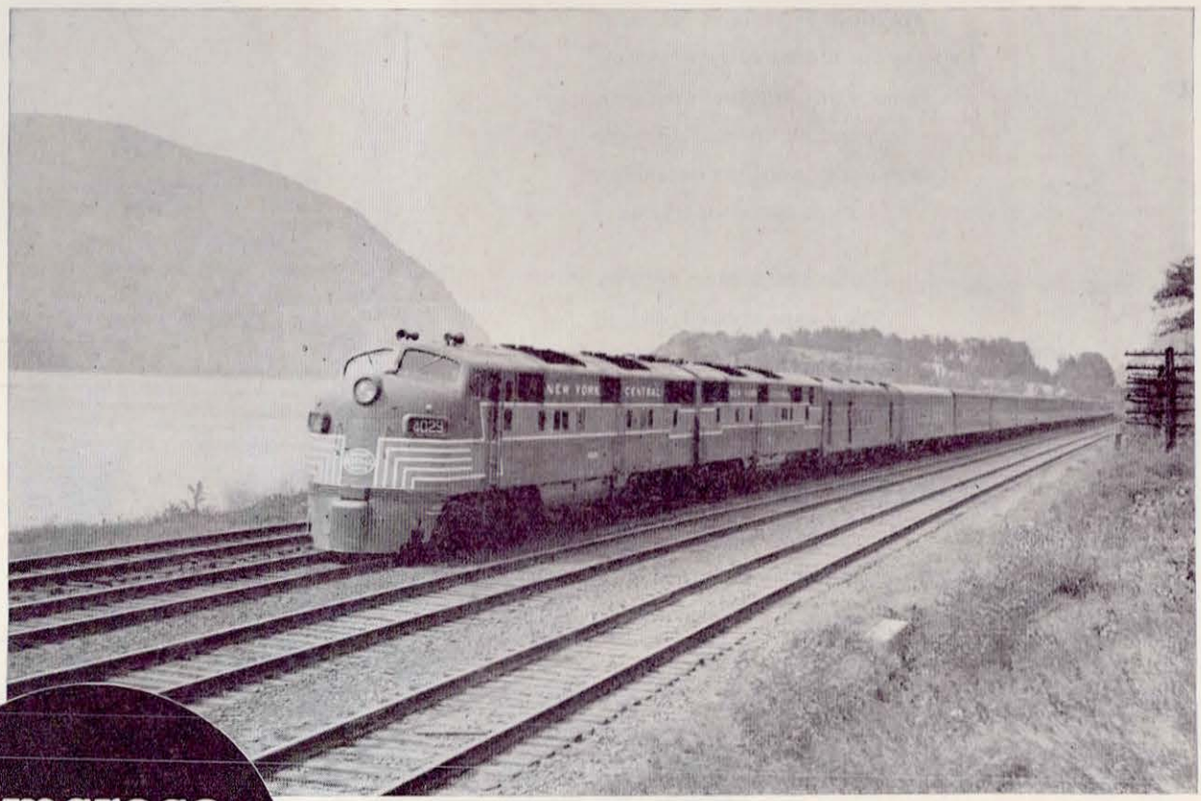
STANDARD STEEL WORKS DIVISION

BALDWIN-LIMA-HAMILTON CORPORATION
Burham, Penna.

BALDWIN-LIMA-HAMILTON

Protection....

Every foot of the way



Amcreco
Lowry Process
Creosoted Products

Protection . . . that's what Amcreco Pressure Creosoting means to you. Protection in the form of safer roadbeds. Cross ties creosoted by the Amcreco Lowry Process last longer too. In fact they even exceed their life expectancy . . . the records prove it.

And the cost of maintenance is lower . . . so much lower, in fact, that it results in appreciable savings year after year.

So for safety and economy in cross ties, bridge ties, framed bridge timbers, piles, poles and cross arms, consult an Amcreco Representative. There is no obligation.

AMERICAN CREOSOTING COMPANY
INCORPORATED

COLONIAL CREOSOTING COMPANY INCORPORATED

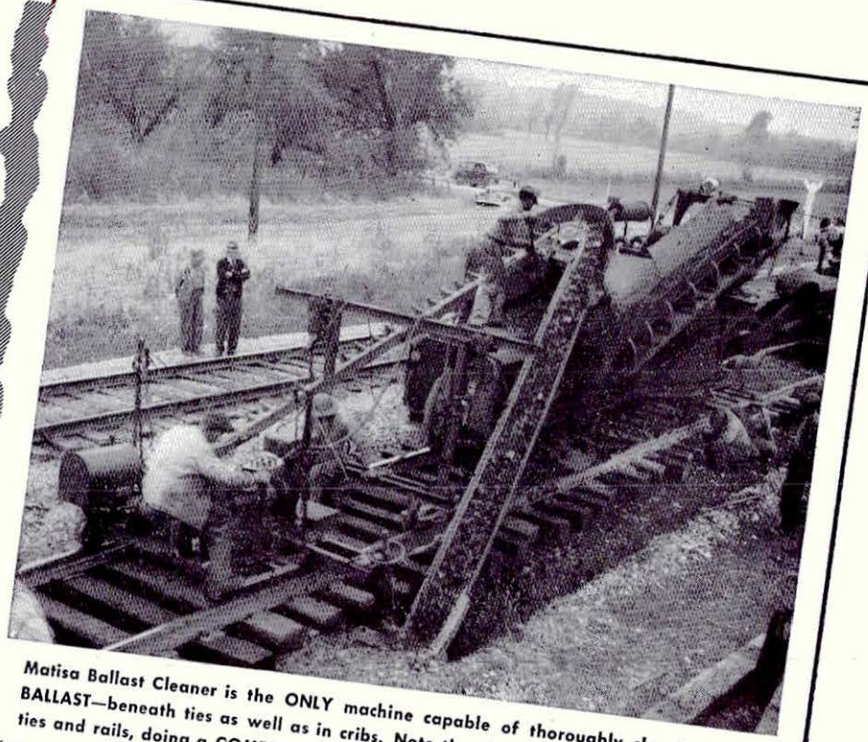
AMCRECO LOWRY PROCESS CREOSOTED WOOD

GEORGIA CREOSOTING COMPANY INCORPORATED

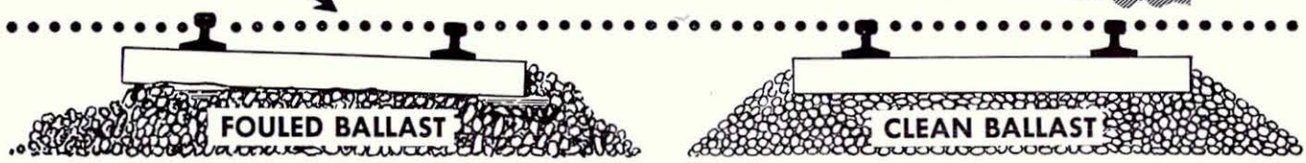
LOUISVILLE, KENTUCKY

Hold Grade Levels

Yet put up to 18" of CLEAN BALLAST UNDER TIES



Matisa Ballast Cleaner is the ONLY machine capable of thoroughly cleaning ALL BALLAST—beneath ties as well as in cribs. Note that digging teeth pass clear under ties and rails, doing a COMPLETE job.



BEFORE *Matisa* CLEANING

AFTER *Matisa* CLEANING

Whether to hold grade levels on dirty ballast, or provide a clean ballast cushion with a grade raise has long been a major maintenance of way headache. Now, with the Matisa Ballast Cleaner, you can hold the grade level (or *lower* it), yet put as much as eighteen inches of thoroughly cleaned ballast under ties!

Matisa cleaning—and *only* Matisa—solves the common grade problems at crossings, underpasses and in yards... And used with the Matisa Tamper, produces roadbed that is *better than new-laid track* put down with other ballasting methods.

Matisa Ballast Cleaners are furnished on a supervised rental basis for cleaning 1,000 feet or 1,000 miles of your track . . . rapidly, efficiently and *completely.* Write our M. W. Engineering Department for details on 1951 Cleaner availability.

THE MATISA EQUIPMENT CORP.

224 South Michigan Blvd. • Chicago 4, Illinois

ALL OVER THE WORLD ***Matisa*** TRACKWORK SPECIALISTS

0501
NEW
HAVEN
0501
0511
0501

ALL-PURPOSE MOTIVE POWER

INCREASES REVENUE FOR THE NEW HAVEN

Just one type of locomotive—the Alco-GE 1600 hp road switcher—provides all the motive power for the New Haven's Berkshire line.

Operating from a pool at Danbury, only seven locomotives are necessary to perform all assignments—freight, passenger and switching—day in and day out.

In multiple the units haul heavy freights. Singly they haul local freights, daily passenger trains, and perform all necessary yard switching. On weekends they also haul summer vacation specials and ski trains.

Originally ten locomotives were assigned this branch. But intense utilization, beyond the New Haven's expectations, reduced the number to seven, releasing three for service elsewhere.

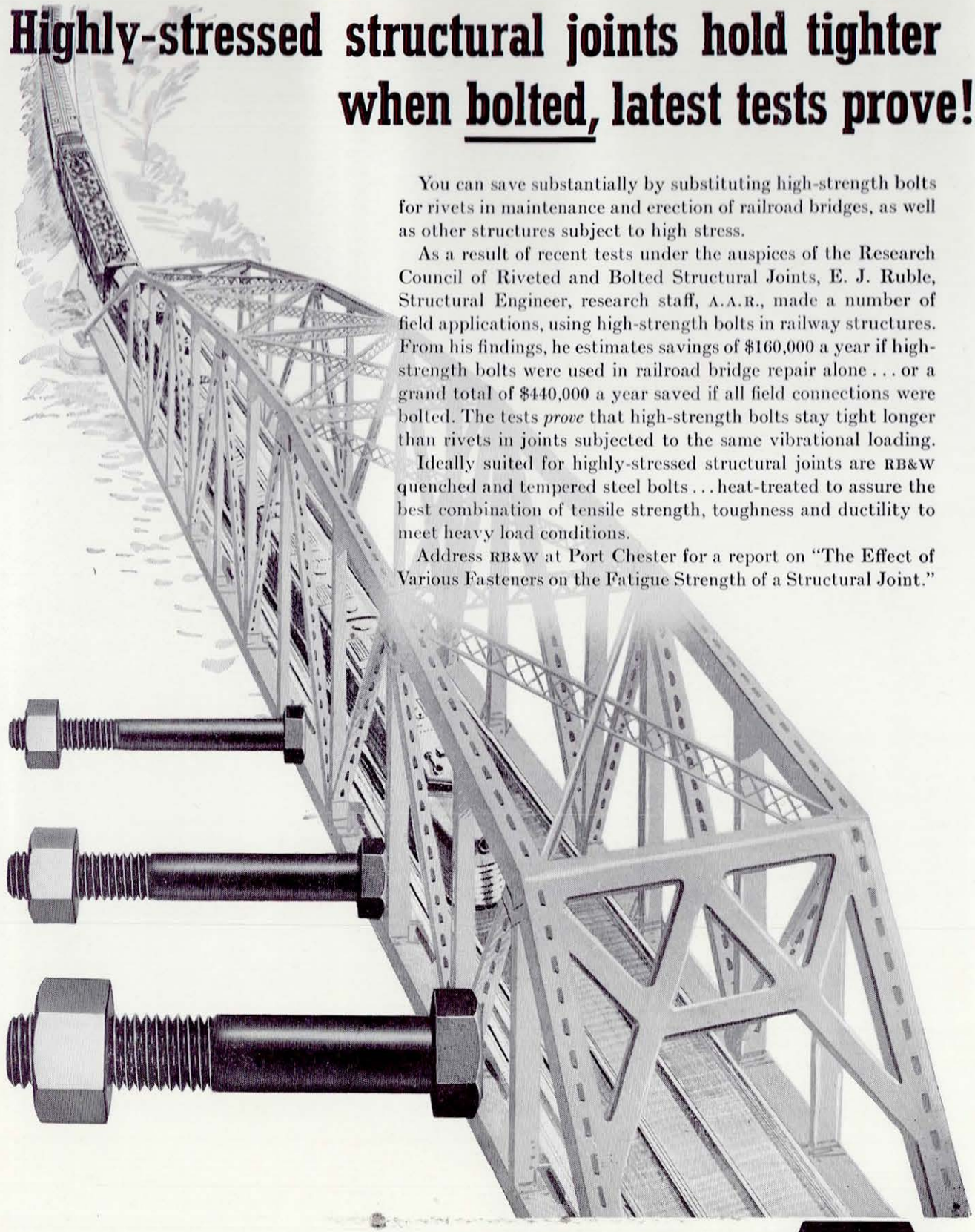
The New Haven's experience with these 10 Alco-GE road switchers prompted the purchase of 35 additional units.

Alco GE

AMERICAN LOCOMOTIVE and GENERAL ELECTRIC

113-263

Highly-stressed structural joints hold tighter when bolted, latest tests prove!



You can save substantially by substituting high-strength bolts for rivets in maintenance and erection of railroad bridges, as well as other structures subject to high stress.

As a result of recent tests under the auspices of the Research Council of Riveted and Bolted Structural Joints, E. J. Ruble, Structural Engineer, research staff, A.A.R., made a number of field applications, using high-strength bolts in railway structures. From his findings, he estimates savings of $160,000 a year if high-strength bolts were used in railroad bridge repair alone . . . or a grand total of $440,000 a year saved if all field connections were bolted. The tests *prove* that high-strength bolts stay tight longer than rivets in joints subjected to the same vibrational loading.

Ideally suited for highly-stressed structural joints are RB&W quenched and tempered steel bolts . . . heat-treated to assure the best combination of tensile strength, toughness and ductility to meet heavy load conditions.

Address RB&W at Port Chester for a report on "The Effect of Various Fasteners on the Fatigue Strength of a Structural Joint."

RUSSELL, BURDSALL & WARD BOLT AND NUT COMPANY

Plants at: Port Chester, N. Y., Coraopolis, Pa., Rock Falls, Ill., Los Angeles, Calif. Additional sales offices at: Philadelphia, Detroit, Chicago, Chattanooga, Dallas, Oakland. Sales agents at: Portland, Seattle

RB&W
THE COMPLETE QUALITY LINE

106 YEARS MAKING STRONG THE THINGS THAT MAKE AMERICA STRONG

For trouble-free bearing performance between motor overhauls

MAGNUS High Mileage TRACTION MOTOR SUPPORT BEARINGS

Mechanical and operating men know that traction motor support bearings are an important factor in today's trend to *higher mileage* between overhauls. They know, too—from years of experience—that putting cost-saving extra miles into precision bearings is a real art with Magnus.

That's why more and more railroads from coast to coast are equipping their Diesel locomotives with longer-lasting Magnus HIGH MILEAGE Traction Motor Support Bearings—and setting new records for trouble-free bearing performance between motor overhauls.

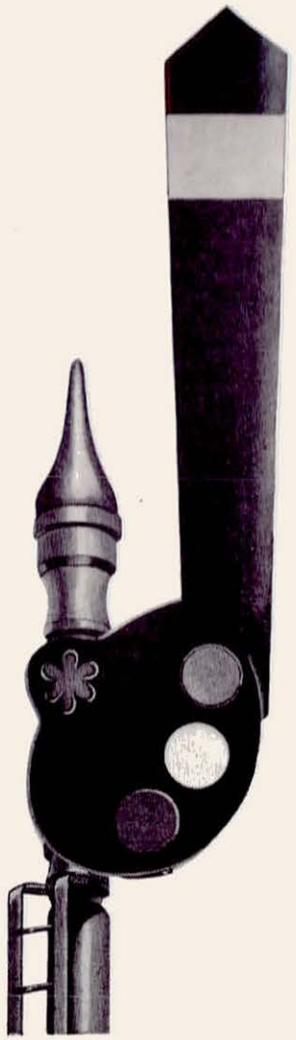
These fine, precision-built bearings are now available for replacement on *every type and make* of Diesel Electric and Electric Locomotives and "MU" Cars. You'll find a few of their outstanding features listed below.

- **SATCO LINING METAL** — gives greater resistance to wear and load, with stronger bonds and increased hardness at elevated temperatures.
- **INTERCHANGEABLE DOUBLE KEYWAY** — cuts stock requirements, simplifies maintenance. Bearings can be used on either the commutator or pinion end of shaft.
- **IMPROVED FLANGE FILLET PROFILE** — prevents "feathering" of lining metal and makes it impossible for Magnus bearings to "ride" the fillet.
- **PERFECTLY MATED BEARING HALVES** — paralleled ID and OD assured by final micrometer test of *each* bearing under load.

FOR COMPLETE INFORMATION get your free copy of Bulletin No. 6000. Just write a post card or letter to Magnus Metal Corporation, 111 Broadway, New York 6, N. Y., or 80 East Jackson Blvd., Chicago 4, Ill.

MAGNUS METAL CORPORATION
Subsidiary of NATIONAL LEAD COMPANY

TELETYPE is speeding *more* railroad traffic than ever before



59 AMERICAN RAILROADS depend upon the speed and accuracy of Teletype printing communication systems to help them move *more* traffic in *less* time. Car handling efficiency on these roads continues to increase as the list of records and reports adapted to Teletype Systems continues to grow. This list now includes:

- Consist Reports
- Wheel Reports
- Switch Lists
- Space Reservation Orders & Confirmations
- Diversion Orders and Reports
- Passing Reports
- Block and Manifest Reports
- Set-Out and Pick-Up Reports
- Cut-Out Reports
- Interchange Reports
- Miscellaneous Operating Reports

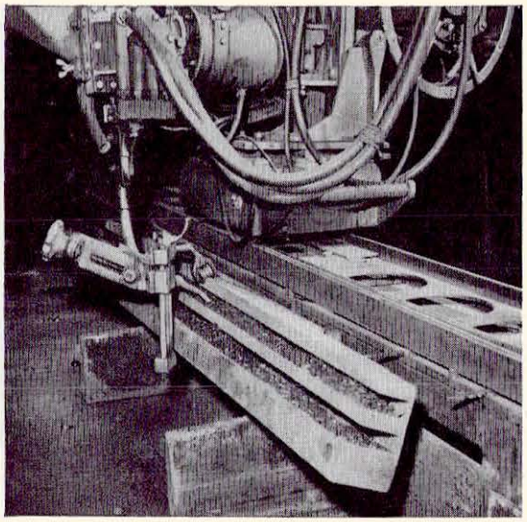
Whatever your communication problems, you will find Teletype equipment in a well-engineered network will help you solve them.

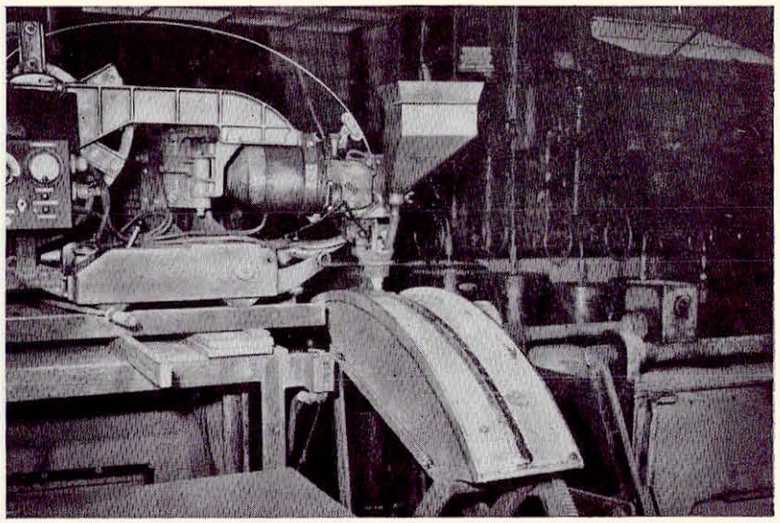
TELETYPE
REG. U. S. PAT. OFF.
CORPORATION
SUBSIDIARY OF
Western Electric Company
INCORPORATED

Having Trouble Getting New Parts?

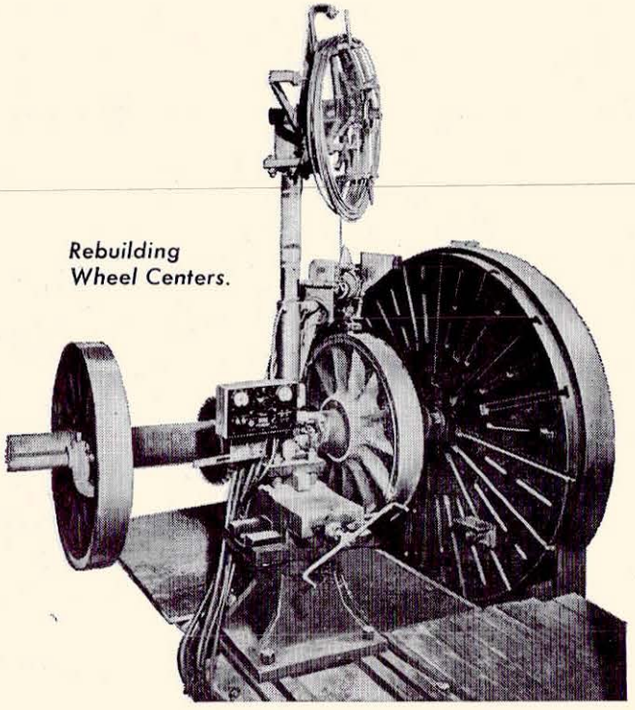
. . . Rebuild worn metal parts by UNIONMELT welding
Trade-Mark

Submerged melt welding with UNIONMELT materials and apparatus saves time and money—welding is fast—parts are returned to service quickly—new surfaces are often superior to original—





Left: Rebuilding Multiple Guide. Right: Rebuilding Buffer Casting.



Rebuilding Wheel Centers.

Almost any part that can be suitably positioned can be rebuilt by UNIONMELT welding. It is being used successfully on parts such as buffer castings, plain and multiple guides, locomotive trailer wheels, driving boxes, piercing plungers and crane wheels.

Deposits of almost any thickness can be made of—

High carbon, flame-hardenable steels
Wear-resistant and hard-facing materials
Corrosion- and heat-resistant steels

Using the submerged melt welding process with UNIONMELT materials and apparatus, clean, dense, uniform weld metal can be deposited at the highest known welding speeds. There is no glare, flash, or spatter during welding. When a finished surface is required, the smooth weld deposit needs only minimum machining.

Write for F-7164 which shows UNIONMELT welding work done in railroad shops with OXWELD's help.

OXWELD RAILROAD SERVICE COMPANY
A Division of Union Carbide and Carbon Corporation
UCC
Carbide and Carbon Building Chicago and New York
In Canada:
Canadian Railroad Service Company, Limited, Toronto

OXWELD RAILROAD SERVICE

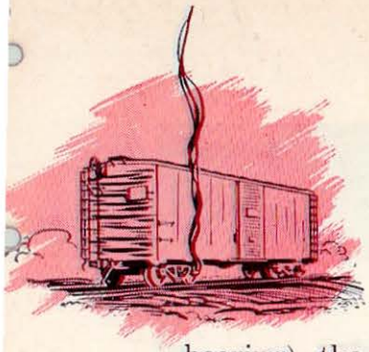
SINCE 1912—THE COMPLETE OXY-ACETYLENE SERVICE FOR AMERICAN RAILROADS

The terms "Oxweld" and "Unionmelt" are registered trade-marks of Union Carbide and Carbon Corporation or its Units.

LABORATORY REPORT REVEALS . . .

Spring Packing provides better lubrication on all 4 important counts

Spring Packing is AAR Approved and Meets AAR Specifications EM-905-50



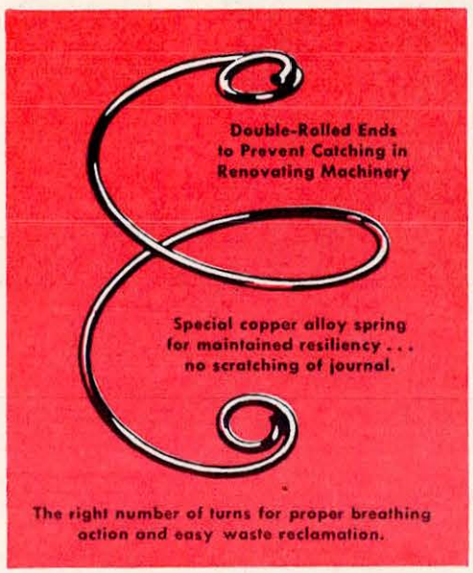
The superiority of Spring Packing for journal box lubrication . . . with all the implications this holds for *your* railroad concerning the elimination of hot box losses and reduction of maintenance costs . . . is now established. In recent tests conducted at the A A R Laboratories in Indianapolis on fully loaded bearings (16,375 lbs. load per bearing), the following facts were developed:

During hot run Spring Packing ran 7° F. cooler at 80 and 100 mile speeds . . . 11° F. cooler at 60 mph speeds . . . than standard cotton packing!

Only 1¼ oz. of oil were consumed (per box per test) with Spring Packing as compared to 3½ oz. of oil with standard cotton packing.

Considerably less foreign material . . . an important factor in the elimination of hot boxes . . . became embedded in bearing surfaces lubricated with Spring Packing! With all standard cotton packing the bearing had quite a bit of embedded lint.

Static resistance per ton in starting was 38 for Spring Packing as compared to 41 for regular packing!


Double-Rolled Ends to Prevent Catching in Renovating Machinery
Special copper alloy spring for maintained resiliency . . . no scratching of journal.
The right number of turns for proper breathing action and easy waste reclamation.

THE REASON WHY

Primary reason for the outstanding record of Spring Packing was the *spring!* Use of 2½ oz. of coil springs per journal box adds enough resistance and "breathing" action to the superior wicking characteristics of the triple de-linted, long thread Spring Packing cotton waste to *assure necessary lubrication at all times of the journal* bearing.

HOW SPRING PACKING SAVES YOU MONEY

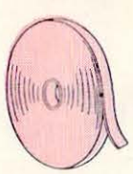
By providing *adequate* lubrication under all conditions (A A R tests covered temperatures from —23° F. to +100° F.) Spring Packing eliminates the possibility of hot boxes due to packing lubrication failure. The money saved by preventing only *one* such hot box loss is sufficient not only to cover the slight additional expense of Spring Packing for years to come for your road, but a variety of other expenses as well. For full information about Spring Packing, write *today!*

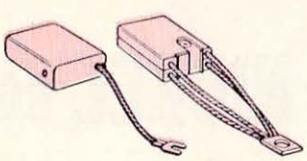
For 31 Years *the Standard*

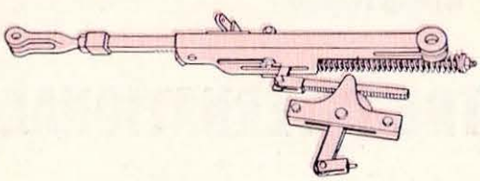
SPRING PACKING CORPORATION
332 SOUTH MICHIGAN AVE.
CHICAGO 4, ILLINOIS

OTHER SPRING PACKING PRODUCTS

Hold-Rite Retainers


Chrome Lock Gasketing


Pittsburgh Carbon Brushes


King Automatic Brake Slack Adjusters

Triple reasons for specifying...

TRIPLE ALLOY STEELS *containing* NICKEL

1 PERFORMANCE—Strength and toughness, resistance to wear, fatigue or shock to meet a wide range of requirements, as dictated by design.

2 VERSATILITY — Ability to meet varied specification demands after suitable heat treatment.

3 ECONOMY—resulting from standard compositions precisely graded to match the engineers' needs.

Experience shows that triple-alloy steels containing Nickel are solving some mighty big problems in many industrial fields. They have established outstanding service records in some of the most exacting applications. The many standard compositions available make it possible to select *accurately*, and with economy, triple-alloy steels to fulfill the requirements of a great variety of applications.

We invite inquiries regarding the selection and uses of triple-alloy steels, containing Nickel.

THE INTERNATIONAL NICKEL COMPANY, INC. 67 Wall Street New York 5, N.Y.

In Your 1952 Weed Control Program

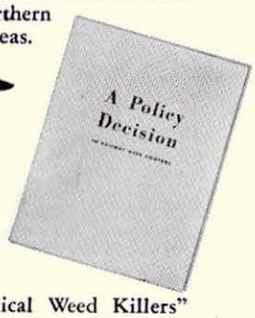
For Real Results instead of Half-Way Measures

Investigate

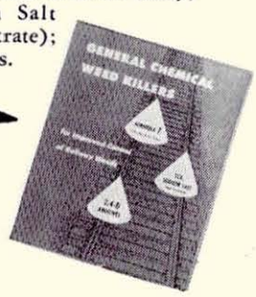
It's tailor-made for all types of vegetation—for all climatic conditions!

GENERAL CHEMICAL
WEED CONTROL
TRADE MARK REG. U. S. PAT. OFF.

Important information available: "A Policy Decision in Railroad Weed Control" . . . outlining General's proven method of treatment. It contains full color illustrations of results achieved in northern and southern areas.



"General Chemical Weed Killers" ...helpful information on General's Weed Killers. These include: Formula 7 (TCA, acid in an oil base); TCA, Sodium Salt (liquid concentrate); 2, 4-D Additives.



Let us tell you how the proven General Chemical Weed Control Program has achieved outstanding results for leading roads.

At your convenience, a conference with a General Chemical Weed Control Specialist may be arranged to discuss your particular problem and its solution. Before we call, let us send you copies of our latest literature. ***Write on business letterhead to***

WEED KILLER DEPARTMENT

GENERAL CHEMICAL DIVISION

ALLIED CHEMICAL & DYE CORPORATION

40 Rector Street, New York 6, N. Y.

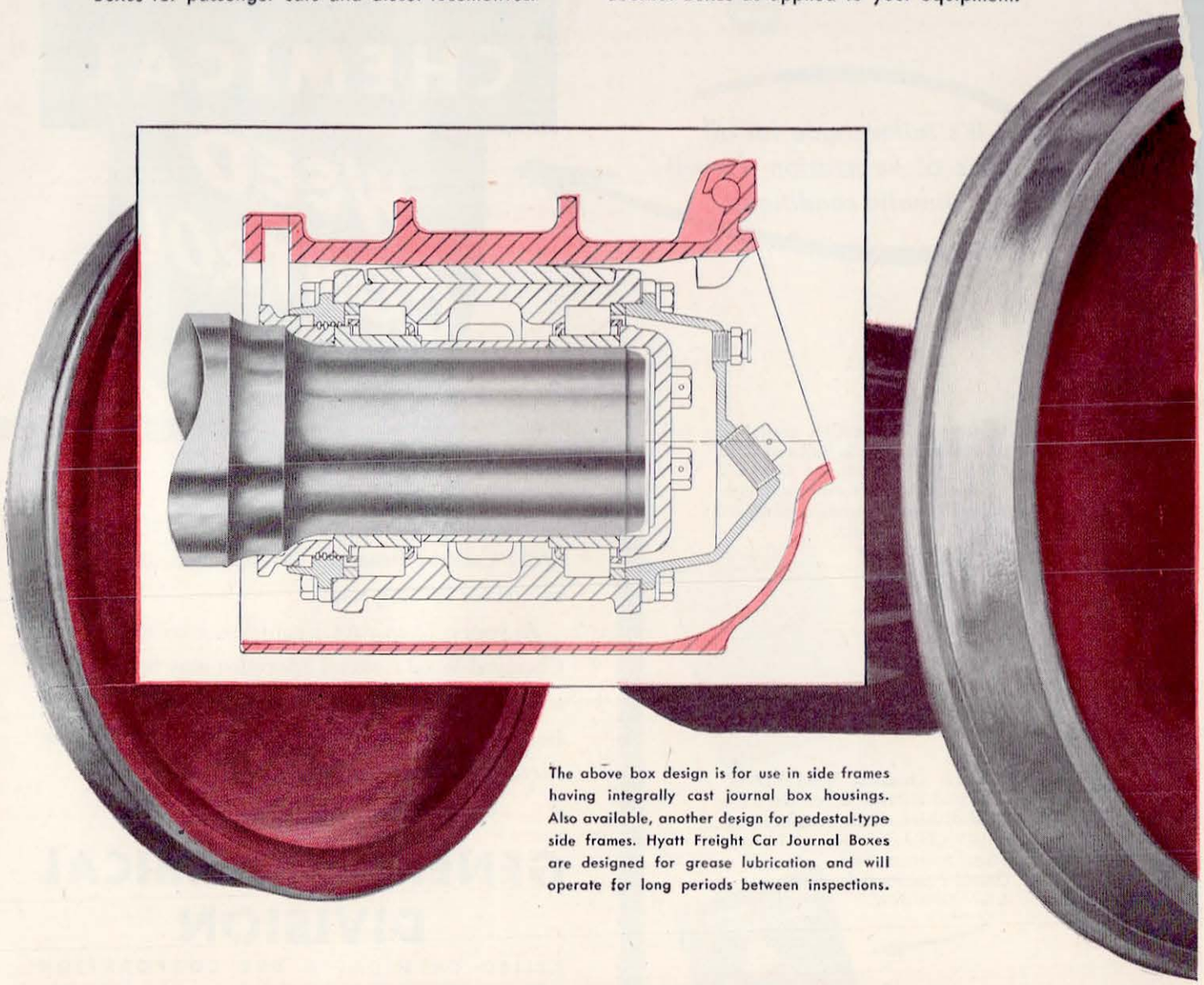
HYATTS FO

New roller bearing journal boxes offer advantages

The Hyatt Roller Bearing Journal Box for freight cars is a new and unique design offering numerous operating and maintenance advantages. For the first time, American Railroads considering the use of anti-friction journal boxes on freight cars of any type, may have the features proven in thousands of Hyatt Journal Boxes for passenger cars and diesel locomotives.

Hyatt is offering this modern addition to freight cars as a major contribution to the successful future of freight transportation by rails. For that future is tied in with freedom from hot box delays, delivery of lading in first class condition, and full utilization of rolling stock.

We will be pleased to discuss Hyatt Freight Car Journal Boxes as applied to your equipment.



The above box design is for use in side frames having integrally cast journal box housings. Also available, another design for pedestal-type side frames. Hyatt Freight Car Journal Boxes are designed for grease lubrication and will operate for long periods between inspections.

HYATT ROLLER BEARING JOURNAL

R FREIGHT

proven on passenger cars and diesel locomotives

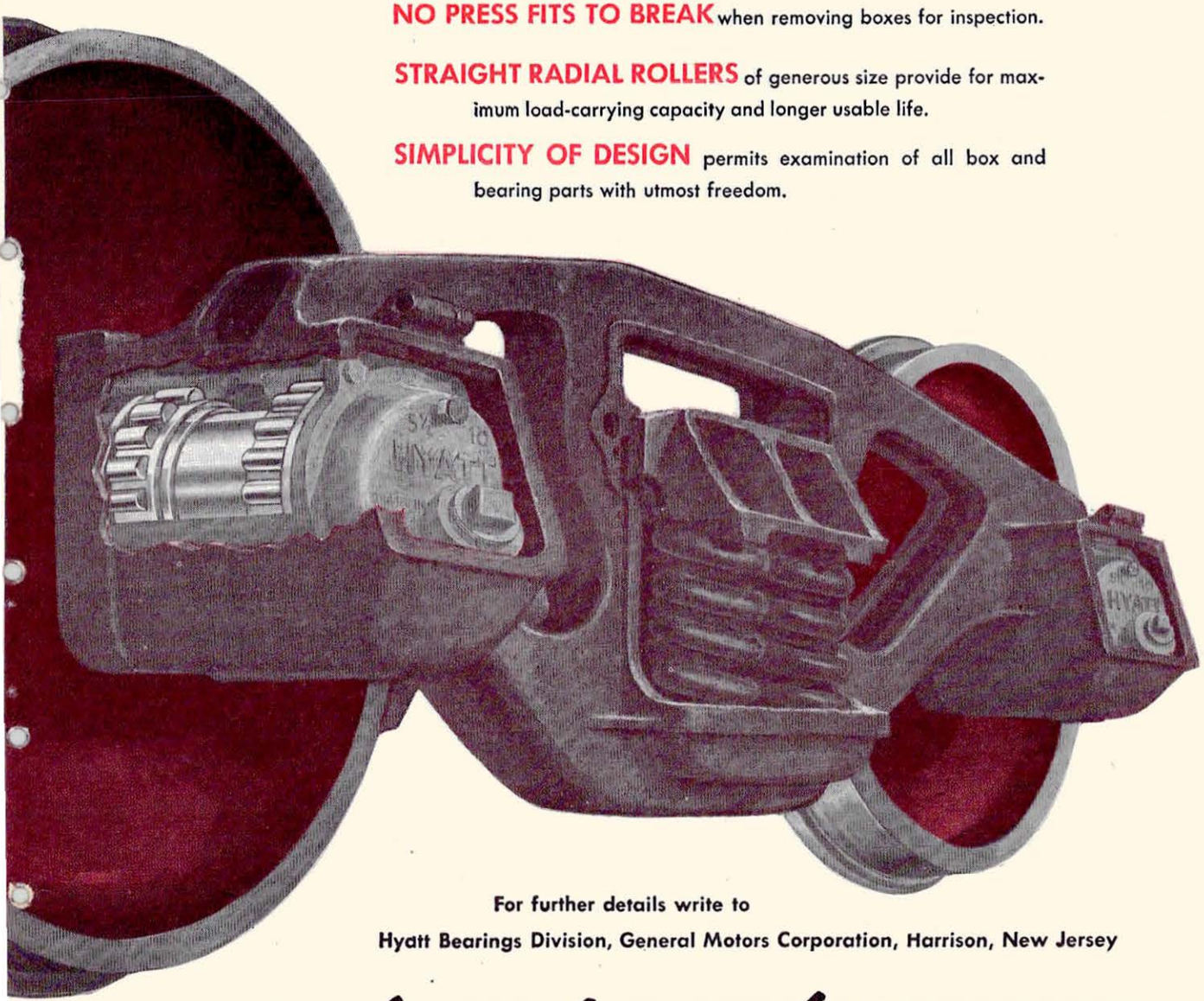
FREE LATERAL, a unique Hyatt design advantage, allows freedom of axle movement through the bearing, thus cushioning shocks, minimizing wear on wheels and truck parts, and insuring against damage to lading.

REDUCED INVENTORY is possible because spare axles and wheels need to be fitted with only inner races and spacer and thrust rings. The cost of stand-by spares is also substantially reduced.

NO PRESS FITS TO BREAK when removing boxes for inspection.

STRAIGHT RADIAL ROLLERS of generous size provide for maximum load-carrying capacity and longer usable life.

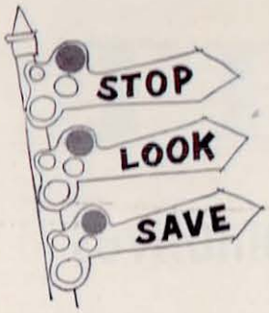
SIMPLICITY OF DESIGN permits examination of all box and bearing parts with utmost freedom.



For further details write to

Hyatt Bearings Division, General Motors Corporation, Harrison, New Jersey

BOXES *for freight cars*



Cut roofing maintenance costs with Johns-Manville asbestos roofs

J-M Asbestos Roofing Shingles

Here's the Johns-Manville Asbestos Shingle roof that was installed on the Taylorville, Ill., station of the Wabash back in 1926 . . . and is still on the job after a quarter century of service.

Johns-Manville Asbestos Shingles are fireproof, weatherproof, and rotproof—not one has ever been known to burn or wear out. They come in a variety of colors, and make a roof that will harmonize with any type of architecture.

J-M Asbestos Built-Up Roofing

This Johns-Manville Asbestos Built-Up roof on the Illinois Central Stuyvesant Docks in New Orleans—installed over 35 years ago—is still giving dependable service.

Johns-Manville Asbestos Built-Up Roofs are smooth surfaced providing thorough drainage . . . and assure a long service life for minimum initial expense. Made of asbestos, each ply is a flexible covering of stone that won't dry out, and the finished roof requires no periodic protective coating.

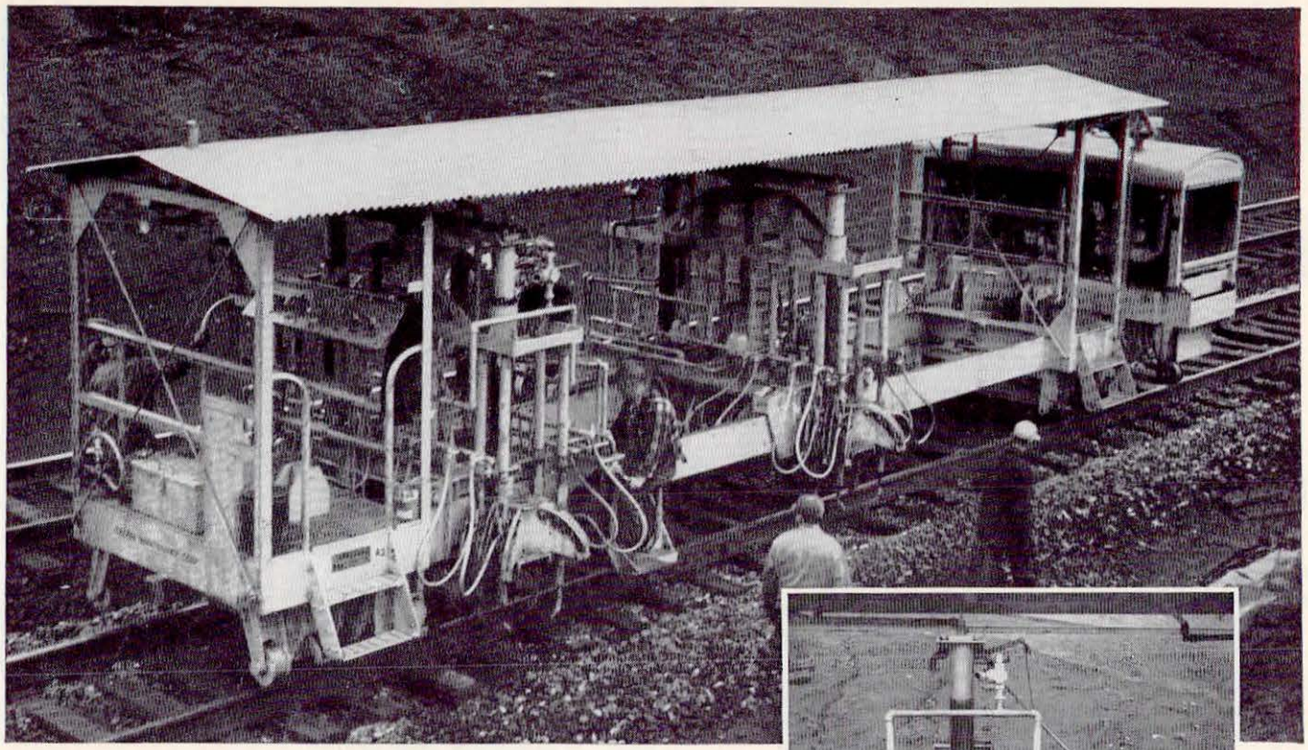
These roofs are typical of the many J-M asbestos roofs that are in service year in and year out . . . with little or no maintenance. Under constant attack from wind, rain, sun, snow and sleet . . . these roofs have set money-saving performance records because they are weatherproof, fireproof, and rotproof.

For your next roofing job, be sure to specify Johns-Manville asbestos roofing materials. You can get further details on these durable, long-lasting materials by writing to Johns-Manville, Box 290, New York 16, New York. In Canada, write Johns-Manville Co., Ltd., 199 Bay Street, Toronto 1, Ontario.

JOHNS-MANVILLE JM PRODUCTS

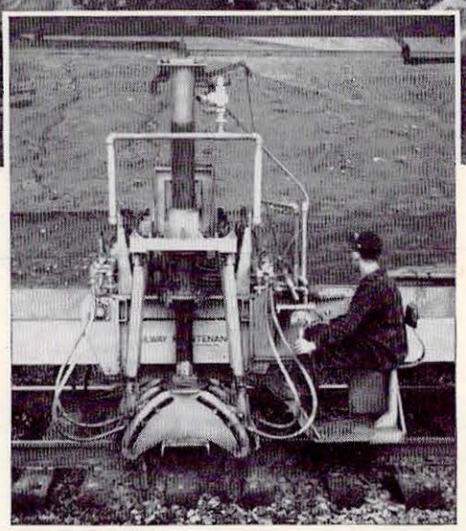
Johns-Manville

93 YEARS OF SERVICE TO TRANSPORTATION



HR Track Raising and Air Tamping Machine Working on the Pennsylvania Railroad, Altoona Division, November 1950.

Now You Can Surface Track Efficiently and Save $1800 Per Mile



You can air tamp stone ballasted track with the HR Track Raising and Tamping Machine at a saving of up to $1800 per mile—over a comparable job with a multiple tool hand operated air tamping outfit. This machine is ideal for spot tamping and can be used for tamping out of face continuous raise with independent jacks.

It is equipped with two carriages, each mounted with 16 air tamping tools arranged in groups of eight centered over each rail, and is instrument controlled for simultaneous or independent operation on ties. The machine raises the track to pre-determined grade and cross levels. While tamping, it holds from 10 to 12 ties, depending on the spacing.

The Track Raiser is a self-propelled mobile unit, all operations air or hydraulic with a centralized control. Greater savings are possible on tracks ballasted with small stone, gravel or cinders. To learn more about operating economy and specifications write to Railway Maintenance Corporation, P.O. Box 1888, Pittsburgh 30, Pennsylvania.

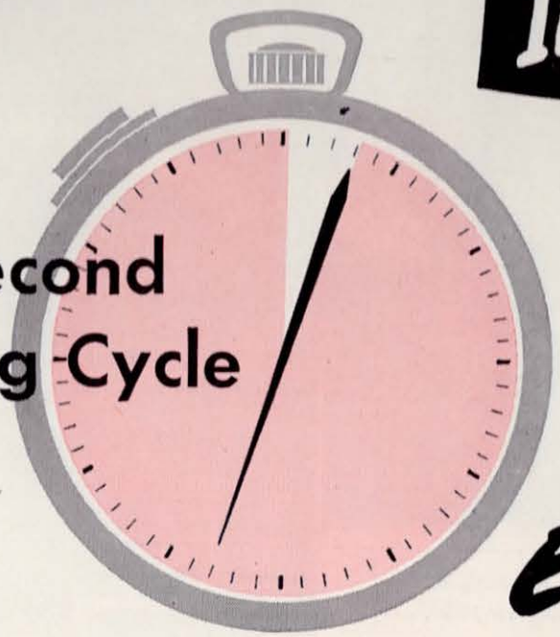
Railway Maintenance Corporation

Designers and Manufacturers of: Moles; Super Moles; McWilliams Crib Cleaners; (R) Track Raiser and Air Tampers; McWilliams Multiple Tool Air Tamper; R.M.C. Rail Joint Packing.

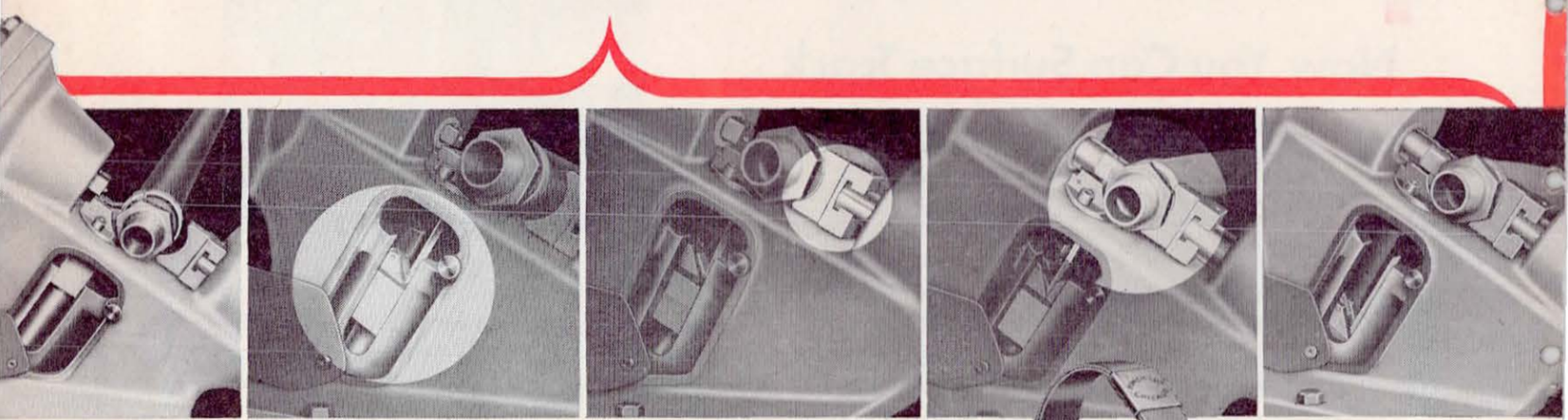
Westinghouse Air Brake Company
AIR BRAKE DIVISION

Introduces the

Three Second Clamping Cycle



NEW! FAST! ECONOMICAL!

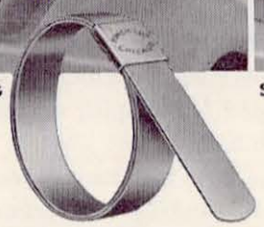


POSITIONING | TIGHTENING CLAMP | BACKING UP | PUNCHING | SHEARING

Hose mounting operations can now be handled faster than ever with this new B-1 Hose Clamping Machine for Punch-Lok clamps.

Clamps are applied to air brake and signal hose with uniform clamping tension consistently maintained.

All mounted hose furnished by Westinghouse Air Brake Company, Air Brake Division, are now equipped with Punch-Lok hose clamps, uniformly applied by the B-1 Hose Clamping Machine.

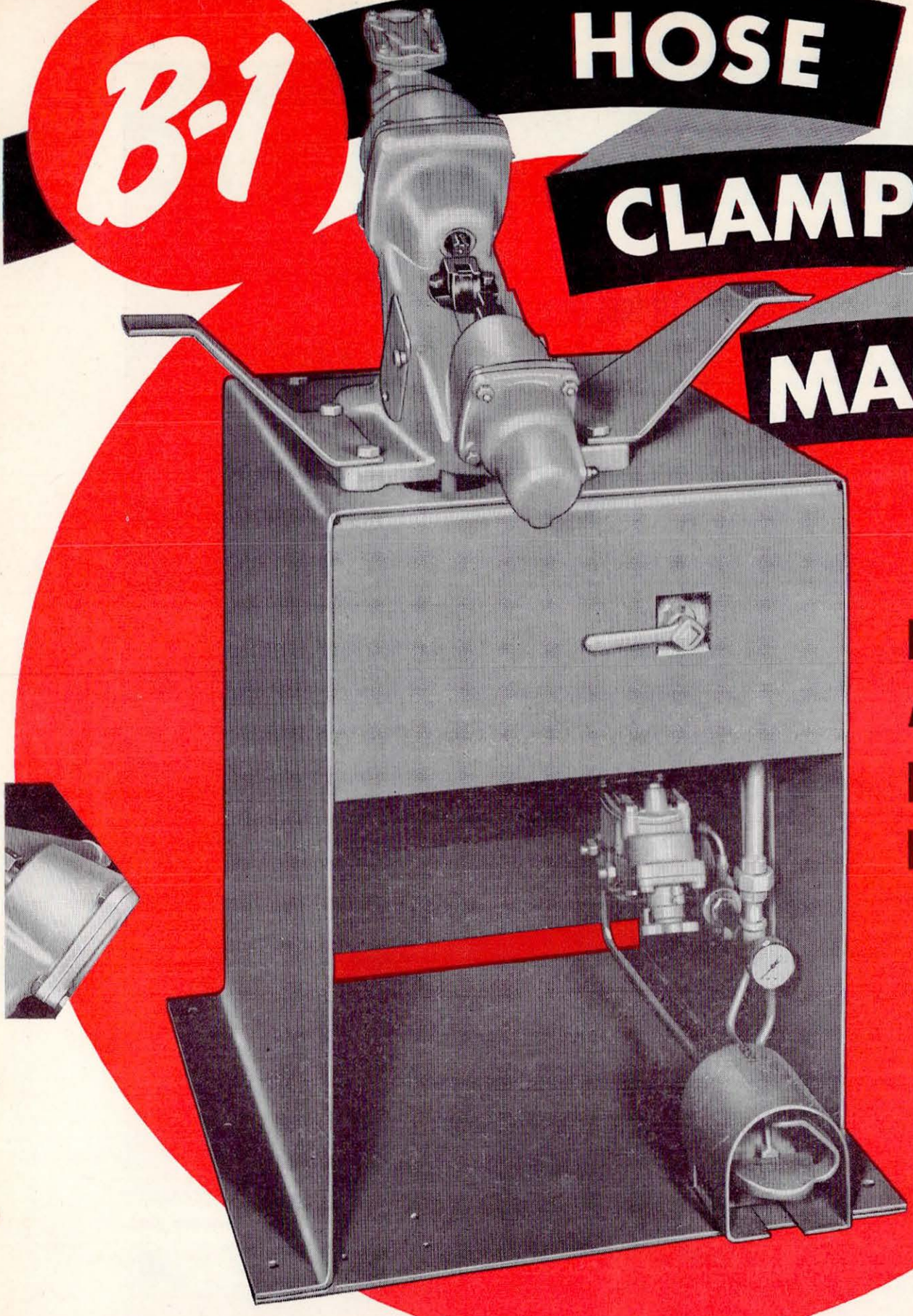


PUNCH-LOK HOSE CLAMPS FOR AIR BRAKE AND SIGNAL HOSE ARE STOCKED FOR IMMEDIATE SHIPMENT BY THE WESTINGHOUSE AIR BRAKE CO., AIR BRAKE DIVISION.

Westinghouse Air

AIR BRAKE DIVISION

B-1 HOSE CLAMPING MACHINE



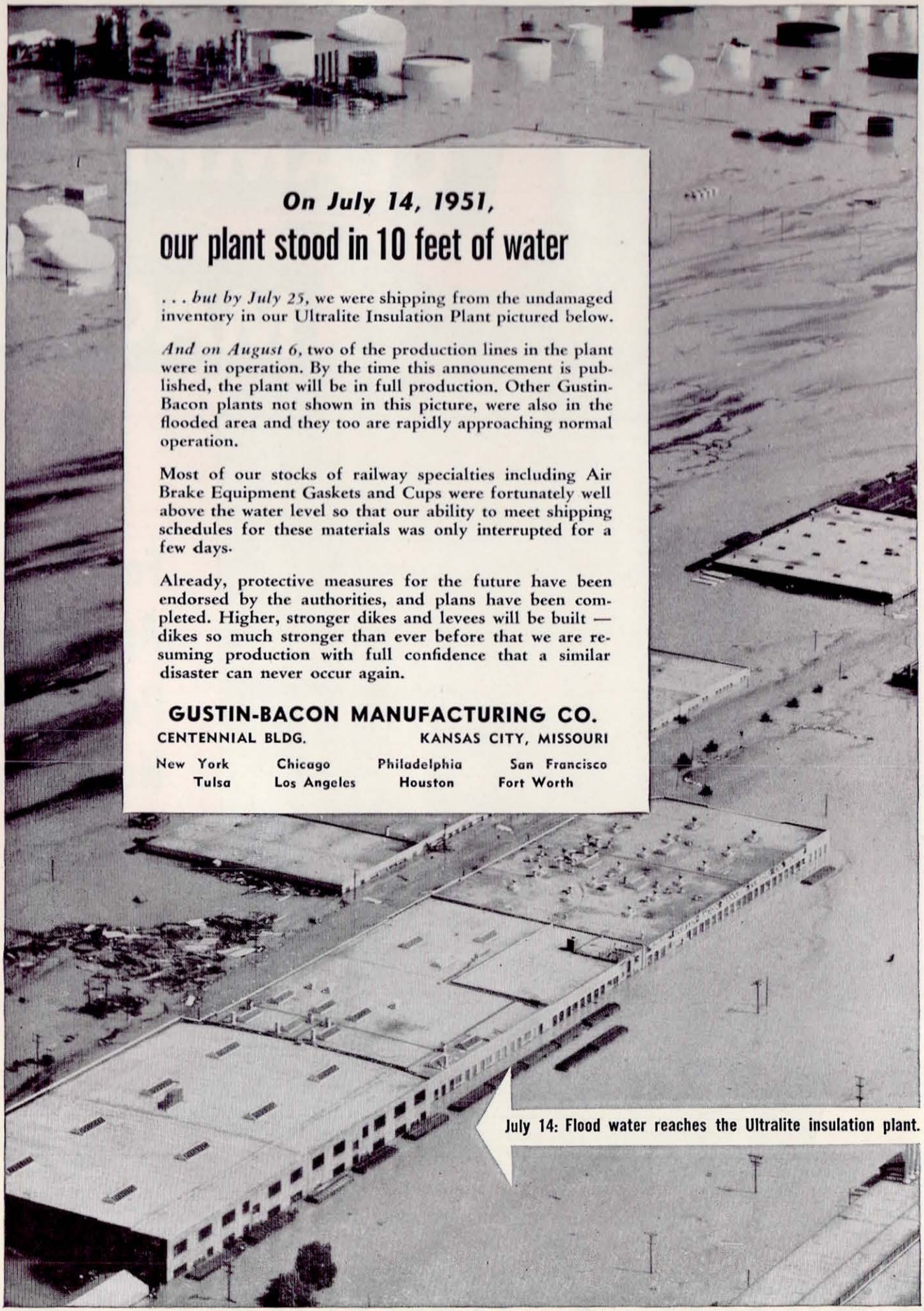
For Applying Punch-Lok Hose Clamps

Ask fo
Circular Notic
No. 1127

Brake Company

WILMERDING, PENNSYLVANIA

Brakes are Basic to Railroad Progress



On July 14, 1951,

our plant stood in 10 feet of water

. . . but by July 25, we were shipping from the undamaged inventory in our Ultralite Insulation Plant pictured below.

And on August 6, two of the production lines in the plant were in operation. By the time this announcement is published, the plant will be in full production. Other Gustin-Bacon plants not shown in this picture, were also in the flooded area and they too are rapidly approaching normal operation.

Most of our stocks of railway specialties including Air Brake Equipment Gaskets and Cups were fortunately well above the water level so that our ability to meet shipping schedules for these materials was only interrupted for a few days.

Already, protective measures for the future have been endorsed by the authorities, and plans have been completed. Higher, stronger dikes and levees will be built — dikes so much stronger than ever before that we are resuming production with full confidence that a similar disaster can never occur again.

GUSTIN-BACON MANUFACTURING CO.

CENTENNIAL BLDG. KANSAS CITY, MISSOURI

New York Chicago Philadelphia San Francisco
Tulsa Los Angeles Houston Fort Worth

July 14: Flood water reaches the Ultralite insulation plant.

NEW ALL-WEATHER GRILLE REDUCES DIRT AND SNOW LOAD!

FAR-AIR* Dynamic Grille is functional and decorative

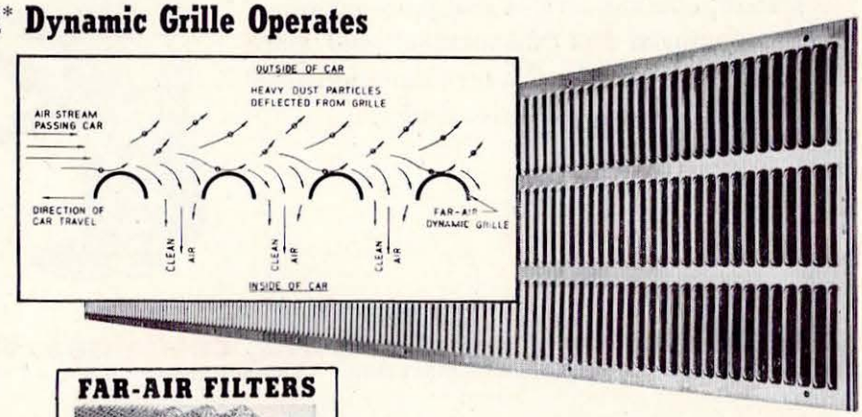
Heavy snowstorms harass diesel engines by overloading filters, which shuts off the air supply or "floods" the engine with snow, sometimes causing short circuits and failures. Heavy dust conditions often encountered have an equally detrimental effect.

This problem was submitted to the Farr Company for study. After exhaustive laboratory and field tests, the Far-Air grille was developed whose specially formed louvers were equally efficient in buffing off foreign particles regardless of travel direction, yet did not interfere with air requirements.

Solving problems of this type for the railroad industry is a specialty of Farr Company. If you have a filtration problem, Farr engineers are available to aid you in properly solving it. Write today for complete information on the new Far-Air Dynamic Grille and other railroad products. NEW ADDRESS: P. O. Box 10187 Airport Station, Los Angeles 45, Calif.

Here's how the FAR-AIR* Dynamic Grille Operates

The function of the grille depends on the speed of the equipment, i.e., the relationship of the air velocity past the grille to the entering air velocity through the grille. It is mounted on the side of the locomotive with the louvers vertical and flush. When the locomotive is in motion, air entering through the grille is forced to make a 90° turn. Foreign particles such as snow and dirt being heavy in mass do not make a sharp turn and are then impinged on the curved louvers and buffed out into the outer air stream.

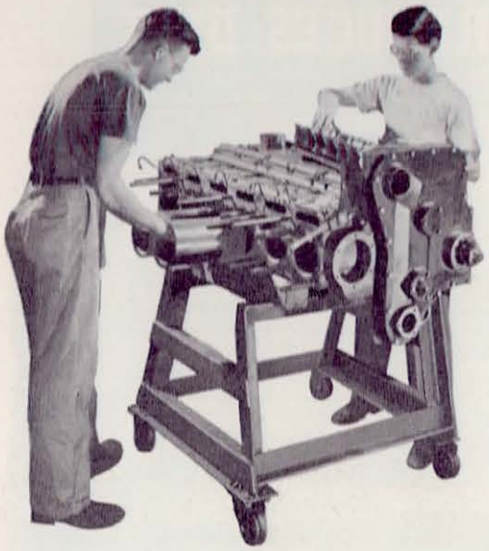


*Trade Mark Reg.

FARR COMPANY *Manufacturing Engineers*

Los Angeles • Chicago • New York

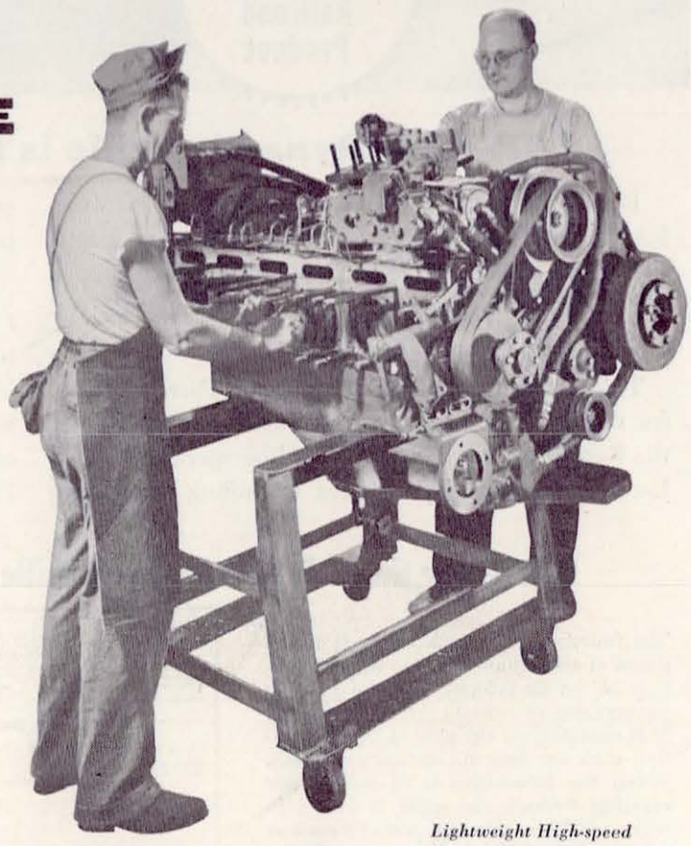
Mf'd under license by Control Equipment Co., Ltd., Montreal, Canada.



Cummins®
CUSTOM BUILT Diesels

BUILT NOT ONCE BUT TWICE

You get more power and profits with Cummins Diesels. They're custom-built to fit your job, and your equipment. And they are literally built *not once but twice.* Each engine is assembled, run-in tested, disassembled . . . inspected, reassembled and *tested* again. Such precision building, Cummins exclusive fuel system, efficient service and parts organization . . . mean *less* "down-time" and *more* profitable power from every Cummins Diesel Engine. *See your Cummins dealer.*



Lightweight High-speed Diesel Engines (50-550 hp)
for: on-highway trucks
off-highway trucks • buses
tractors • earthmovers
shovels • cranes
industrial locomotives
air compressors
logging yarders and loaders
drilling rigs
centrifugal pumps
generator sets and power units
work boats and pleasure craft

CUMMINS ENGINE COMPANY, INC., COLUMBUS, INDIANA
Export: CUMMINS DIESEL EXPORT CORPORATION Columbus, Indiana, U. S. A. • Cable: CUMDIEX

Diesel power by CUMMINS

CUMMINS Dependable DIESEL

TRADEMARK REG. U. S. PAT. OFF.

Fine Features...

"PHOTOGRAPH FROM DUBARRY BEAUTY PREPARATIONS BY RICHARD HUDNUT."

make fine seating too...!

SEAT No. 4080-4

Features . . . that bring the greatest amount of relaxing comfort to the most passengers, no matter what their size or shape.

Features . . . that are designed, engineered and constructed to keep original and maintenance costs low, while keeping Karpen standards high.

Features . . . that give seating the toughness to withstand the severe wear and tear of transportation service year-after-year.

Features . . . many of which have been originated by Karpen and accepted as standards in the transportation industry.

S. KARPEN & BROS. TRANSPORTATION SEATING

624 South Michigan Avenue, Chicago • One Park Avenue, New York

George B. Cross Company Exclusive Sales Agents

KARPEN SEATING...POINT OF CONTACT BETWEEN THE COMPANY AND ITS PASSENGERS

How many will you need?

Electro-Motive is prepared to do its full share in meeting railroad needs for rebuilt traction motors and other Diesel locomotive components in the uncertain months ahead—but we will need your cooperation!

We need to know ahead of time how many units you will require per month so materials can be scheduled in advance, and

We need your assistance in returning "Unit Exchange" assemblies promptly to assure on-time shipment of "rebuilds."

Naturally, we will do our utmost to handle emergencies that cannot be forecast. But normal volume requirements can only be met with work schedules drawn up well in advance.

Electro-Motive volume rebuilding makes possible production-line efficiencies that assure highest quality at lowest cost. Our Factory Branches are equipped with the latest, most modern tools and facilities—and are staffed with specially trained personnel—to rebuild Diesel locomotive components with the same techniques and standards used in original manufacture.

Every unit rebuilt by Electro-Motive—whether "Unit Exchange" or "Rebuild and Return"—carries the same guarantee as a new assembly. (100,000 miles or one year from date of application on locomotive.) Just tell us how many units you will need and we'll do our best to supply them.

What we mean by "Unit Exchange"

There are two ways in which components may be sent to Electro-Motive for repair and rebuilding. "Rebuild and Return" involves the rebuild and return of the customer's own property. "Unit Exchange" means the immediate delivery of a previously rebuilt and fully guaranteed component in exchange for one needing repair sent in by the customer. You pay only for the work needed to bring the assembly to top-quality standards at Electro-Motive's low flat-rate charge.

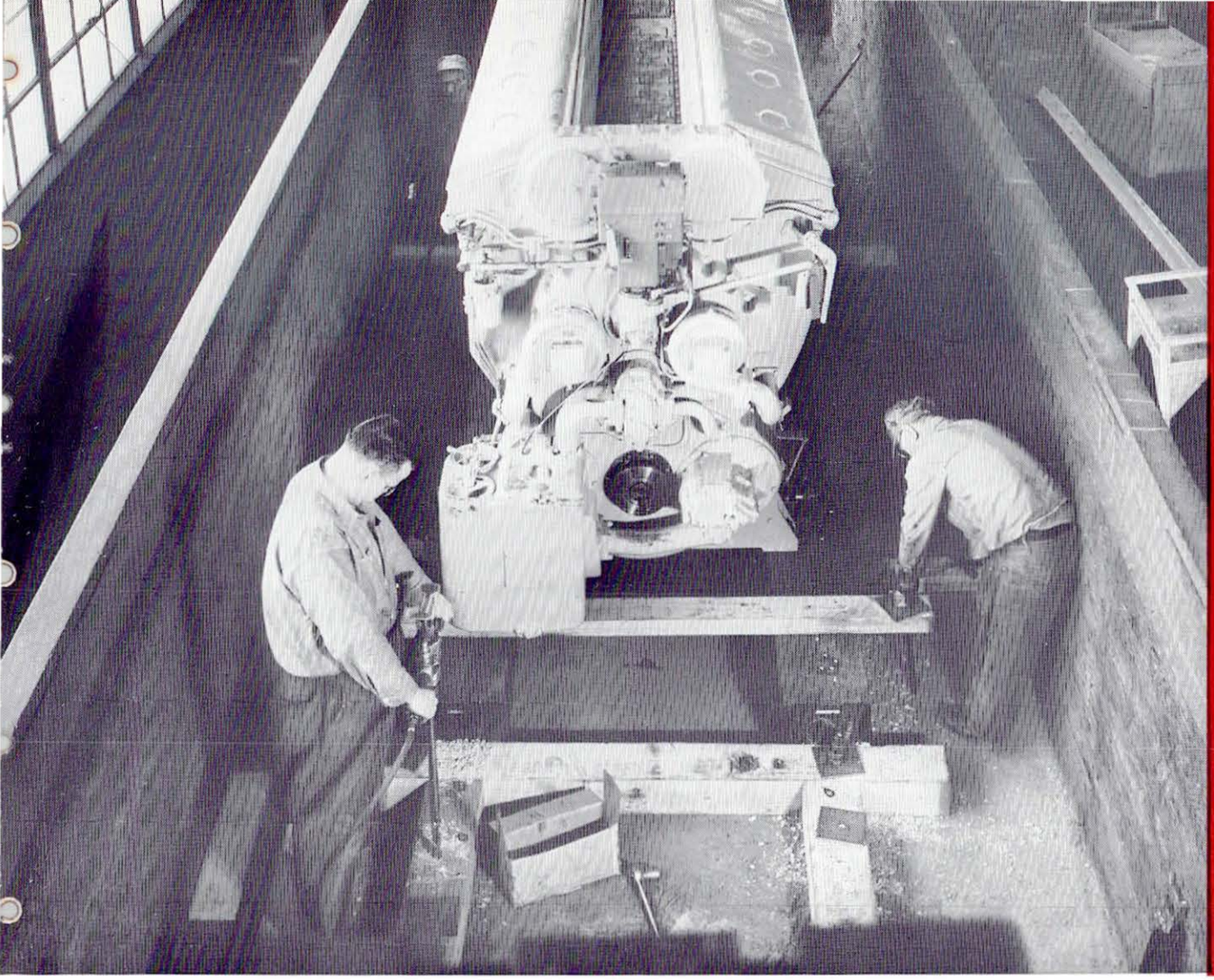
GENERAL MOTORS LOCOMOTIVES

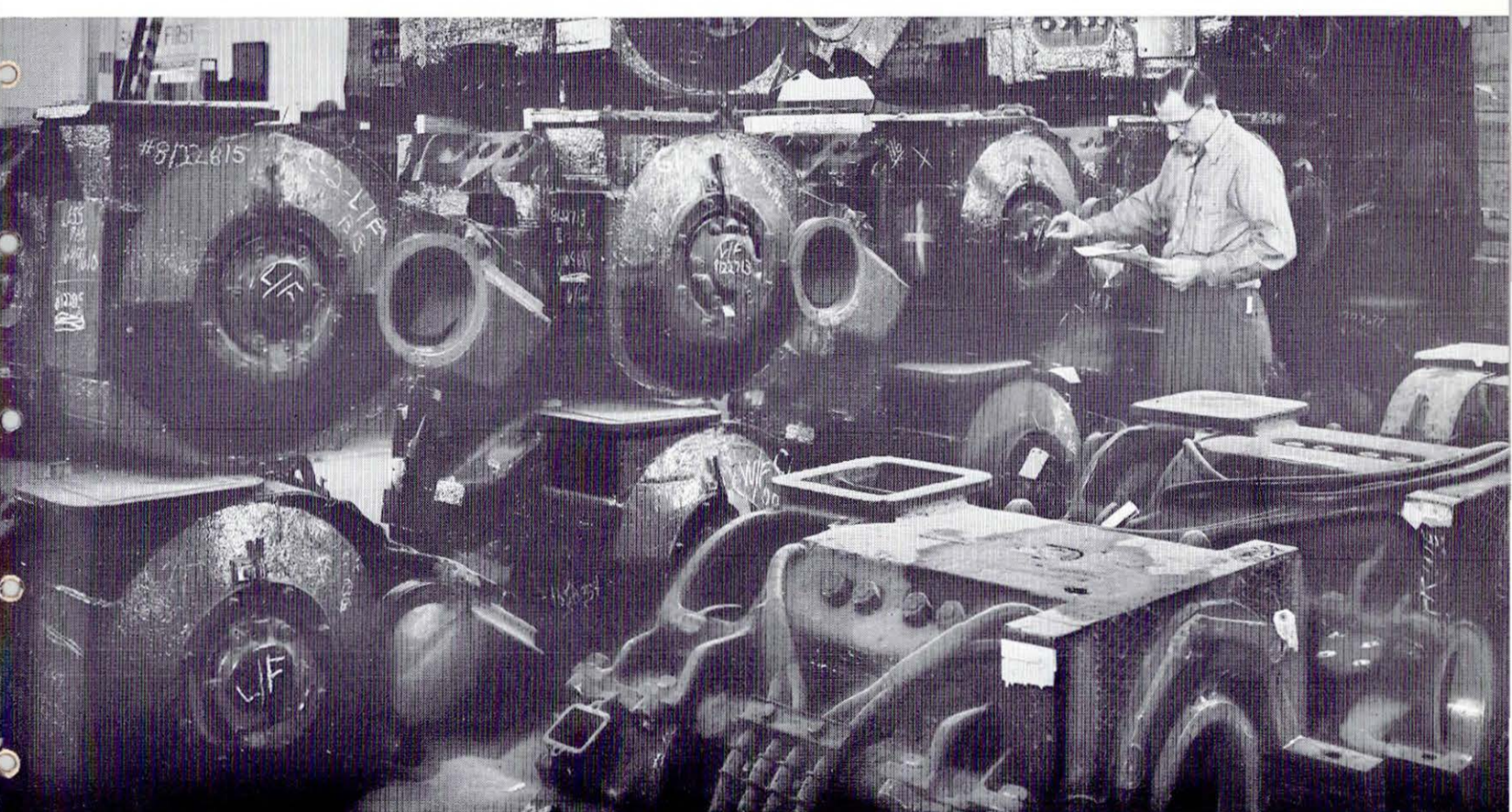
ELECTRO-MOTIVE DIVISION

GENERAL MOTORS • LA GRANGE, ILL.

Home of the Diesel Locomotive

In Canada: GENERAL MOTORS DIESEL, LTD., London, Ontario

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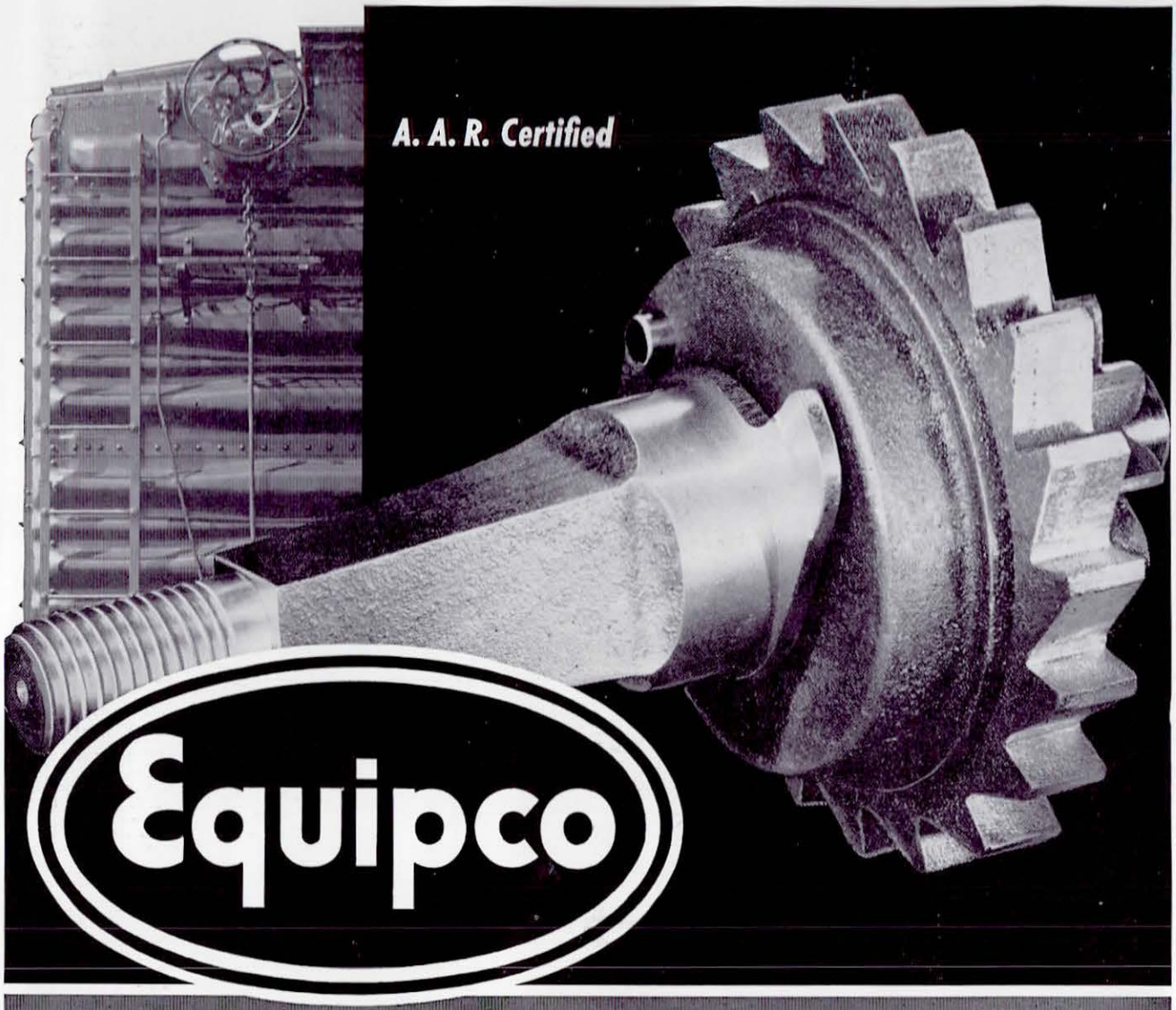


Non-Spin Wheel Hand Brake

We'll see you at the
ALLIED CONVENTION
Booths 25-26-27 Mezzanine

This friction clutch makes it easy—and safe—for the brakeman to operate the Equipco Non-Spin Wheel Brake. He can do it all with the wheel—turn *right* to *set*—turn *left* ("inch it along") to *release*. There is no spinning of the wheel; no sudden unwinding of the chain; no possible way for this clutch to jam. Like other types of Equipco Hand Brakes, it is built for long, economical and dependable service . . Write for literature. Type 3750-A. A. A. R. Certified.

UNARCO

Equipco Hand Brake Department

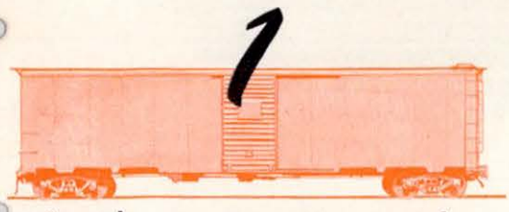
UNION ASBESTOS & RUBBER COMPANY

332 SOUTH MICHIGAN AVENUE • CHICAGO 4, ILLINOIS

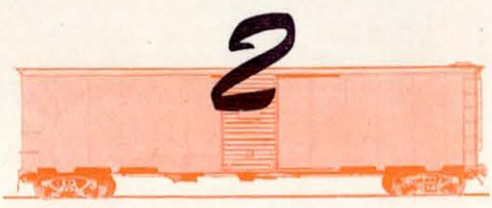
Oversize pads **bonded through steel plates, working against steel plates provide extra absorption and greater capacity.**

Why Today

the need is growing for this extra protection!



Loads are greater and schedules tighter.



Welded steel cars are more rigid.

Flat yards, more and more, give place to hump yards where impacts generally exceed the capacity of conventional draft rigging.

● Hump yard classification is the most vital reason why cars today need better cushioning. In hump yards, impacts at *less* than 4 miles per hour are the exception. For impacts of more than four miles an hour, cars require modern cushioning . . . Waughmat Twin Cushions. Twin Cushions protect cars and lading against the majority of excessive impacts of hump yard coupling.

FOR CAR AND LADING PROTECTION SPECIFY . . .

WAUGHMAT *Twin Cushions* TRADE MARK REGISTERED

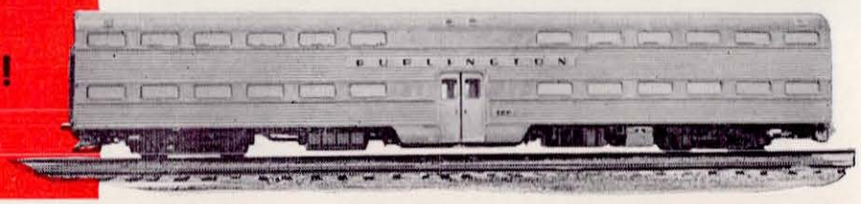
WAUGH EQUIPMENT COMPANY, New York · Chicago · St. Louis · Canadian Waugh Equipment Company, Montreal

● *Closeup of gallery section which accommodates extra passengers*

● *Interior of Chicago, Burlington & Quincy Railroad's new 148-passenger commuter cars into service this year*

Pittsburgh LAVAX ENAMELS

beautify and protect Burlington Lines' new Gallery Cars!



THE INTERIORS of the Burlington Lines' new 148-passenger gallery cars are one more example how Pittsburgh Railway Finishes meet the demands of advancements in rail transportation.

● **Thirty of these** new and unusual cars, which have caused considerable comment in railway circles, are used in commuter service on Burlington's Chicago-Aurora run. They are called upon to carry a large number of passengers daily.

● **As this kind** of operation subjects the interiors of these cars to unusual wear and tear they were finished with Pittsburgh Lavax Enamels to provide the utmost in protection as well as in smart appearance.

● **This is just another instance** of the growing recognition among those who operate and maintain this country's vital rail transportation that Pittsburgh provides the most satisfactory finishes money can buy for every railway need.

● **Why not avail yourself** of Pittsburgh's vast and long experience in this field? We'll gladly discuss your problems with you at your convenience.

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Factories: Milwaukee, Wis.; Newark, N.J.; Springdale, Pa.; Houston, Texas; Los Angeles, Calif.; Portland, Ore. Ditzler Color Div., Detroit, Mich. The Thresher Paint & Varnish Co., Dayton, Ohio. Forbes Finishes Div., Cleveland, Ohio. M. B. Suydam Div., Pittsburgh, Pa.

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All your SCRAP is urgently needed, NOW

THE scrap shortage is serious. *Your* scrap—every pound of iron and steel scrap you can locate in your plant or factory—is vitally needed and needed right away. For unless you do everything possible to get this scrap on its way to the mills, steel production is bound to slow up. That can't be allowed to happen. But without your help it surely will.

It takes at least one-half ton of scrap to make one ton of steel. With the mills turning out more than 2 million tons of steel per week, over 1400 carloads of industrial scrap are needed *every day*. And industry, somehow, must provide it.

What you can do to meet this emergency

First, organize a permanent Scrap Salvage Committee and make the "drive-for-scrap" part of your daily operations. Search out every possible source of scrap. Turn your old and worn-out equipment, tools and machinery over to your scrap dealer, at once. Dig out your discarded dies, rusted-out tanks and boilers, your old rails and other miscellaneous junk, and start them back to the mills through your scrap dealer. Encourage every employee to report every retired or obsolete machine that now stands idle—see that it is turned in for scrap.

By getting this "dormant" scrap off your premises and into the furnaces you'll be helping not only yourself but America as well. *More* scrap turned in, means *more* steel turned out—it's as simple as that. So let's get going.

You'll find your local scrap dealers listed in the yellow pages of the phone directory.

This page would ordinarily be used to tell you about

U·S·S WROUGHT STEEL DIESEL WHEELS

but, because without SCRAP we cannot produce steel, we are asking instead for your all-out help in getting more SCRAP to the mills.

UNITED STATES STEEL COMPANY, PITTSBURGH · COLUMBIA STEEL COMPANY, SAN FRANCISCO
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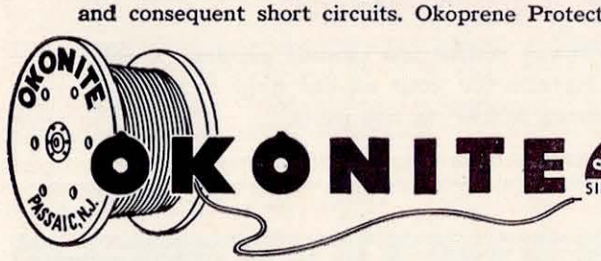
Reliable, long-lived Okonite-Okoprene is widely specified for cab signal wiring, generator and motor leads, power and control jumpers, lighting systems, and controllers on diesel electric locomotives. In car wiring: circuits for lighting, air conditioning, air circulation, bells, pumps, radio, telephone communication and cooking.

Write today for Bulletin RA-2078 for full details on diesel electric wiring; Bulletin RA-1036C on car wiring. The Okonite Company, Passaic, N. J.



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RATE REGULATION IGNORES POWER OF INVESTORS TO GO "ON STRIKE"

In this space in our issues of August 20, 27 and September 3 we discussed the failure of the Interstate Commerce Commission to grant to the railroads the 15 per cent increase in freight rates they sought in the proceeding, Ex Parte 175; and some of our readers have interpreted the discussion as personally critical of members of the Interstate Commerce Commission. No reflection on the personal ability or integrity of individual commissioners was expressed, implied or intended. The fact remains, however, that—as an institution—the commission has failed, and is continuing to fail, to exercise its regulatory power over the railroads, and over railroad rates in particular, so as to permit the railroad industry to earn the net revenues required if it is to continue in operation as a privately financed business.

An important metropolitan newspaper, on September 9, reported that the railroads would not put up any further fight for higher freight rates but would endeavor to improve net earnings by the pursuit of economies. If this report be true, then the railroads are over-optimistic, because the I.C.C.'s low estimate of the railroads' revenue needs would doubtless lead it to order *reductions in rates*, if the railroads should be so fortunate as to discover economies which would enable them to achieve generous earnings at the present rate level. This assumption is not based upon guesswork, but is derived from actual I.C.C. behavior in 1943—when it reduced rates because the railroads had managed in 1942 to attain net earnings of almost $1,500 million, or slightly more than 6 per cent on their net investment.

Return Must Average 6%

If railroad credit is to be restored and the railroads are to be adequately supplied with capital from private investment sources, then the railroads must earn not less than 6 per cent return *on the average*—not just in years of intensive production. This conclusion follows, not because there is something inherently "just" or "reasonable" about the figure of 6 per cent, but from the fact that investors can dependably earn 6 per cent or more by investing their funds in the utilities or in manufacturing; hence they are not putting, and are not going to put, their money in adequate amounts into railroads until the railroads can offer comparable security of principal and a comparative rate of return. The challenge which confronts railroad management, therefore, is that of convincing the Interstate Commerce Commission and predominant political opinion—to which, the record strongly suggests, the I.C.C. defers in its rate decisions—that the public interest requires that the railroads be permitted to earn at least 6 per cent on their net investment, *on the average*. This would mean 8 or 9 per cent in "good" years to balance out the inevitable 2 or 3 per cent, or less, in "poor" years.

Public Education Needed

The railroads cannot escape the obligation to undertake public education in this sector, on the grounds of a hope that operating economies may permit the achievement of adequate earnings from the present rate level—for the simple reason that, to judge from past performance, the commission will *reduce present rates* if, by any chance, in a year of maximum traffic, such rates should yield as much as 6 per cent on the net investment. The commission, that is to say, is using a figure as a "ceiling" for railroad earnings in any one year which it ought, instead, to be applying as a long-term average which railroad earnings should attain throughout an entire business cycle.

This paper is sympathetic with the view held by many railroad men that, on many movements of many commodities, the railroads have "priced themselves out of the market"; and that reductions are in order in such "paper rates," where the railroads could make a profit from rates substantially lower than those at which the trucks are now moving this traffic. It would, however, not

benefit the railroads to increase their earnings by recapturing traffic with such rate reductions, only with the prospect that the I.C.C. would then reduce rates on non-competitive traffic sufficiently still to keep the railroad industry in the poorhouse.

The only way the railroads can expect to stay in business as private enterprise is to offer a "wage" to investors comparable to that which they expect to receive from other industries which are bidding for available capital supply. The story is told in complete and conclusive detail in the book, "Rates of Return—Class I Line-Haul Railways, 1941-48," by Sidney L. Miller, Virgil D. Cover, et al. It would be well if the substance of that book were put in evidence in every proceeding before the Interstate Commerce Commission and the state commissions; in every hearing before a legislative committee or administrative agency; and in every court action in which railroad earnings are at issue—until, at last, the simple but fundamental truth begins to percolate through the official consciousness that the practical elimination of profit in the railroad business is not compatible with continued private financing and operation of that business.

The public authorities are not permitted to starve to death, even, the convicted felons committed to their jurisdiction—but that is precisely the treatment they accord as standard practice to the useful and essential railroads. It surely should not be a superhuman task in popular education to gain general public recognition of such basic facts as these—but, difficult or not, such educational effort plainly offers the only means for avoiding public financing of the railroad industry, or chronic deterioration of railroad service from lack of adequate means for efficient operation.

Why is it so necessary in this period of mobilization and in the war that may follow, to have the railroads kept healthy? It is necessary because of the far greater economy of mass transportation performed by rail than performed any other way. If you were to undertake to move 100,000 tons of freight from coast to coast by rail you would have to use up ninety tank cars of diesel fuel. If you wanted to do the same job by truck, you would have to have 250 tank cars of diesel fuel, or nearly three times as much. If you wanted to do it by air, you would have to have 2700 tank carloads of aviation gasoline, or nearly thirty times as much.

And when it comes to manpower, if you did the job by rail, it would take 3,500 man days of train crew time to move the same 100,000 tons of freight from coast to coast. If you wanted to do it by truck, you would use 90,000 man days of truckdriver time. If you wanted to do it by air, you would use up 50,000 man days of plane crew time.

With this nation certainly facing some day the overhanging threat of a terrible showdown with Russia which has manpower resources numerically superior to ours and which has access to petroleum resources in the satellite countries and in Iran and other places just beyond that will give them all kinds of oil, this economy of mass transportation by the rail method will become increasingly important and, in the event of all-out war, will become vital. —*From an address by William T. Faricy, president of the Association of American Railroads, to the Executives' Club of Chicago.*

WHY ASSOCIATIONS MEET

During the first three days of this week meetings are being held at Chicago of six groups of mechanical and electrical supervisors having to do with the operation, servicing and maintenance of railway motive power and rolling stock.

These groups are the Electrical Sections of the Mechanical and Engineering Divisions of the Association of American Railroads, meeting at the Hotel La-Salle, and the five mechanical associations — the Air Brake Association, the Car Department Officers' Association, the Locomotive Maintenance Officers' Association, the Master Boiler Makers' Association, and the Railway Fuel and Traveling Engineers' Association—meeting at the Hotel Sherman, accompanied by an exhibit of the Allied Railway Supply Association. Together, the railway associations are responsible for the successful operation of trains, so far as this is affected by the condition of cars and locomotives and by the successful functioning of a complex lot of mechanisms—both those which constitute the modern locomotive and a number of auxiliary devices affecting the comfort of passengers and the control of trains, both passenger and freight.

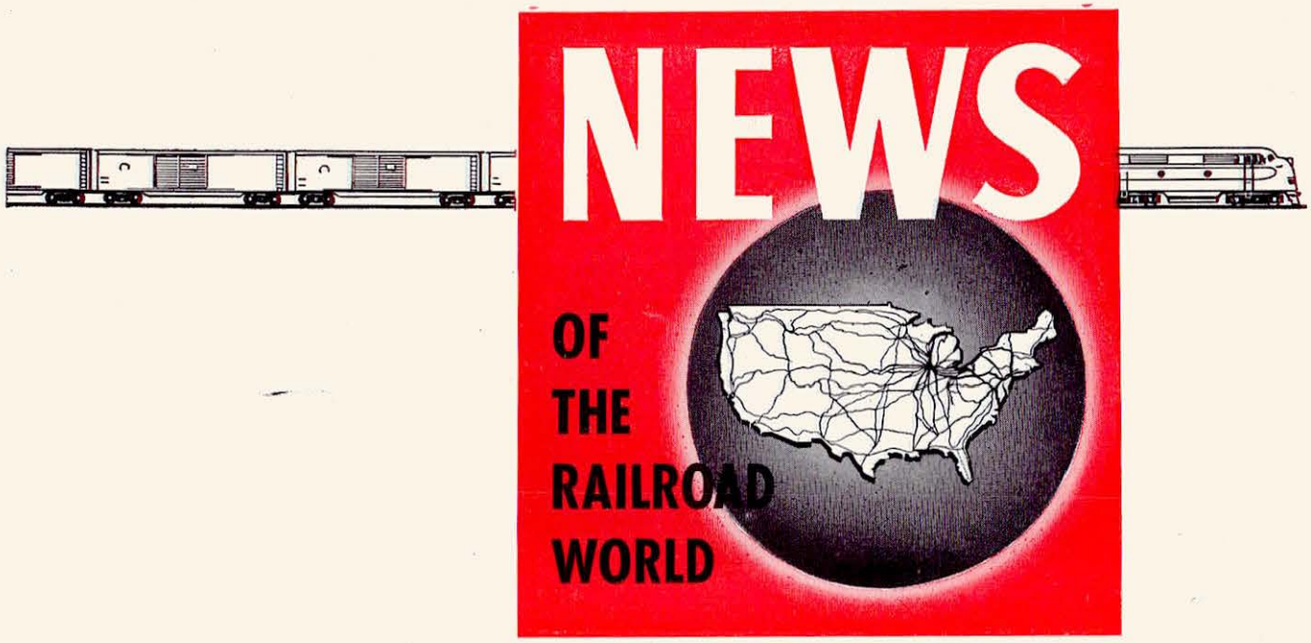
The membership of these associations includes some officers with departmental responsibilities, but, in the main, is made up of foremen who are responsible for the effectiveness and economy with which the men in the cab and in the shops and terminals do their work. Improving that effectiveness and economy is the objective of all of these organizations.

There are two basic philosophies with respect to organizations for the conduct of operations such as those of a railroad. One is the military type in which all planning is undertaken at the top and the responsibility at the bottom is the unquestioning execution of orders. In the other type some of the responsibility for planning as well as execution filters down through the organization and is borne at every level. In the main, this is characteristic of the railways.

Part of the responsibility for organizing as well as carrying out every repair and servicing job should rest with the foreman who has it in charge. Without responsibility he is likely to be satisfied with a routine performance to which his intellectual powers contribute nothing.

It is the foreman who uses his head for the purpose of improving the quality, effectiveness, or economy of his work who is of greatest value to his railroad as well as to himself.

Each of the six associations is a source of inspiration to its members to apply their ingenuity to the improvement of the operations within their jurisdiction. Not only is it a source of inspiration, it is also a medium for the exchange of ideas from which better methods are developed and disseminated with the least delay. It stimulates the mobilization of brain power through all ranks of supervision into an effective force without which the railroads would be ill equipped to keep ahead of current handicaps.



U. S. Chamber's Transport Policies Being Reexamined

C. McD. Davis, president of the Atlantic Coast Line, and John W. Barriger, president of the Chicago, Indianapolis & Louisville, are members of a 10-man subcommittee which the Transportation and Communication Committee of the Chamber of Commerce of the United States has appointed to "reexamine" the chamber's national transport policies. The subcommittee, headed by C. H. Beard, general traffic manager of the Union Carbide & Carbon Corp., was appointed at a September 6 meeting of the committee.

At the same time the committee set up a 28-man group to study the chamber's international transport policies. Chairman of this group is W. S. Shepherd, general traffic manager of the Aluminum Company of America.

Recommendations growing out of these studies will be presented to the chamber membership at its 1952 annual meeting, the committee's announcement said. It also said that committee members had agreed that the study of national transport policies "should include. . . further consideration of current policy favoring a single federal transportation agency, especially the authority and functions of such an agency."

Members of the subcommittee on national transport policies, in addition to Chairman Beard and Messrs. Davis and Barriger, are: E. H. Buhner, president, Silver Fleet Motor Express, Louisville, Ky.; J. H. Carmichael, president, Capital Airlines, Washington, D. C.; Walter F. Carey, president, Commercial Carriers, Inc., Detroit, Mich.; F. L. DeGroat, general traffic manager, Jos. Schlitz Brewing Company, Milwaukee, Wis.; L. L. French, executive vice-president, Union Barge Line Corporation, Pittsburgh, Pa.; Earl F. Slick, chairman of the board, Slick Airways, San Antonio, Tex.; and Earl B. Smith, vice-president of traffic, General Mills, Minneapolis, Minn.

The committee's September 6 meeting also included a luncheon session which was addressed by P. A. Hollar, deputy undersecretary of commerce for transportation. Mr. Hollar discussed steel allocations for transport equipment and the steel outlook for the future. Other matters considered by the committee were listed in its announcement as "highway financing and user charges, air subsidy separation, and three transportation conferences to be sponsored by the chamber in the coming year."

Rock Island Truck Operations Reprieved

The Rock Island Motor Transit Company, subsidiary of the Chicago, Rock Island & Pacific, has been granted temporary 60-day authority to continue its motor carrier operations to named points in Illinois, Iowa, and Nebraska. The authority, subject to so-called "key point" restrictions, was granted by the Interstate Commerce Commission upon application by the carrier.

This temporary authority permits interchange and joint rate arrangements with other carriers, and was granted after the commission received conflicting statements from shippers, civic groups, and other carriers in the area. During the 60-day period the commission expects to conduct public hearings at Des Moines, Ia. Rock Island will thus have a chance to show "public need" for its service on a permanent basis.

Earlier this year the Rock Island motor operations were involved in a case before the U. S. Supreme Court (*Railway Age* March 5, page 64). The court upheld the commission in a decision aimed at driving trucking affiliates of railroads out of the all-motor freight business.

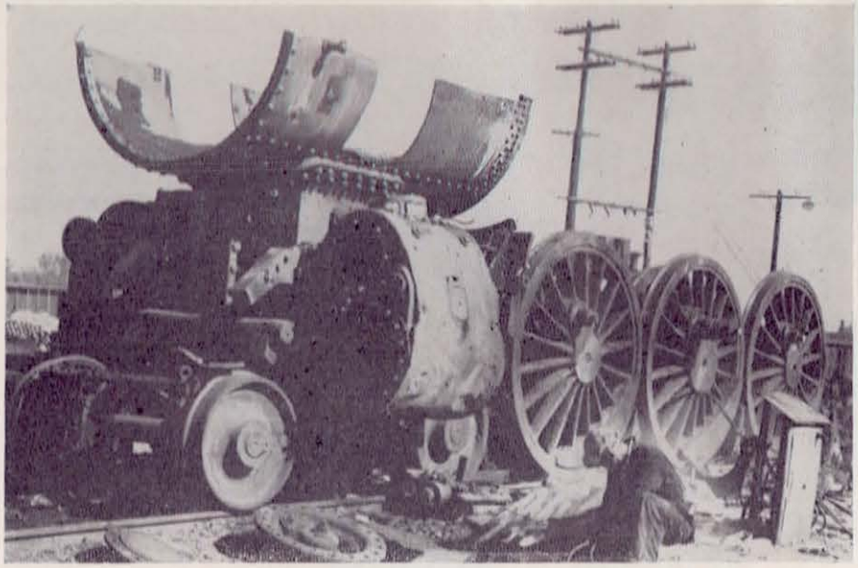
When the commission moved to place in effect the order upheld by the court, the Rock Island asked for more time to study the possibility of entering joint rail-motor rates. The commission eventually gave the carrier until August 30.

Before this time expired the application for temporary authority was

WRIGHT ESSAY CONTEST CLOSES OCTOBER 1

The New York Railroad Club's 1951 Roy V. Wright memorial essay contest —announcement of which was made on page 35 of the April 23 *Railway Age*— will close on October 1.

The contest—the third of its kind to be sponsored by the New York club —offers $1,500 in prizes for the 11 best essays on the subject "Essential Provisions of an Adequate National Transportation Policy."



FROM OBSOLETE STEAM POWER . . .

. . . CAN COME NEW ROLLING STOCK —There never seems to be enough steel to go around any more, but railroads can still speed delivery of urgently needed cars, motive power, rails, etc., by channeling all possible scrap to the nation's steel industry. The Union Pacific found that since August 1945, it has sent 578 locomotives, 17,427 freight cars, 44 passenger cars and 698 pieces of roadway equipment through regional boneyards to produce a grand total of 947,979 gross tons of scrap. The locomotive shown above being cut up at Pocatello, Idaho, was the 578th "old gal" to meet her maker. On the other side of the steel ledger are these 50-ton box cars just completed by the General American Transportation Corporation for the Rock Island. These cars are equipped with eight-foot doors

filed. This application states that public need does exist for the motor carrier operation, and it is on this point that the commission has received conflicting statements.

Under the 60-day authority granted by the commission, Rock Island Transit may transport general commodities over specified routes from Chicago to Omaha, Neb. Such shipments are restricted to a maximum weight of 2,000 pounds each. Further, no shipment may be transported between Chicago and Omaha, nor between any of the following points, or through, to, or from more than one of these points: Omaha, and, collectively, Davenport, Ia., and Betterdorf, and Rock Island, Ill., Moline, and East Moline.

T.A.A. to Submit First Report by December

The first report from the Transportation Association of America's national cooperative project will be submitted to the association's board of directors by next December, according to a letter sent to all members of the Interstate and Foreign Commerce Committees of the Senate and the House by Donald D. Conn, executive vice-president of the association.

This report, Mr. Conn's letter said, "will present major recommendations on national transportation policy—the goal being a permanently sound system of transportation on such a basis that workers, investors, shippers and managers, alike, may benefit under a modern system of regulation and equitable competitive conditions (under private ownership).

"The next step," the letter added, "when the report is submitted in December, is to set it in type, for review and comment of the regional forums and enterprise councils which have been organized during this same period to give voice to the viewpoints of all parts of the country and all elements of the economy.

"At the same time, preliminary proof copies will be furnished members of the Senate and House committees with the understanding that final association recommendations will await the results of the nation-wide tests of public opinion in forums, enterprise councils, and local and area organizations concerned.

"Accordingly, during the next session of Congress, you will receive the association's report dealing with physical and financial aspects of the transportation structure; analysis of existing transportation policy; relation of the regulatory function to current conditions; and a series of major recommendations in statutory form. Recommendations as to some issues which are still under consideration will be submitted in supplemental reports.

Revelle W. Brown Going To Norway as Consultant

Revelle W. Brown, who retired on September 1 from the presidency of the Reading, will go to Norway next month on a two-months' assignment as consultant to the Norwegian government. This was announced September 10 by the Economic Cooperation Administration which said that Mr. Brown's assistance was being provided through E.C.A.'s productivity and technical assistance program.

Norway, the announcement continued, requested services of an American expert to advise on railroad improvements. The request came after the visit to the United States a year ago of four Norwegian railroaders who were members of the 85-man railroad study team drawn from 12 Marshall-plan countries.

Mr. Brown is expected to fly to Norway about October 6. Among factors which he will advise upon are "the use of diesel-electric locomotives, use of centralized traffic control, railroad administration, and cost accounting," E.C.A. said. Of the present state of railroads in Norway, it had this to say:

"The rolling stock of the Norwegian railroad system—the government-operated Norwegian State Railways—was depleted during the war. This equipment has not yet been entirely replaced. Also, it is estimated that 11 per cent of the rolling stock now in use is over-age. In the face of a 75 per cent increase in freight traffic and

a doubling of passenger traffic since 1939. Norway's railroad system is being taxed to the limit. Additional operating improvements are being sought to increase the efficiency of the system."

Hicks Succeeds Walther On Adjustment Board

David H. Hicks has been appointed carrier member of the National Railroad Adjustment Board at Chicago, to succeed Andrew G. Walther, who has retired, as reported in *Railway Age* September 10, page 56.

Mr. Hicks, whose photograph appears on page 8, was born in 1893, and began his career in 1909 as a clerk in the motive power department of the Baltimore & Ohio at Locust Point, Md. He became a special inspector for the general superintendent of motive power and equipment in 1937 and personnel supervisor of the motive power department in 1941. He was appointed assistant superintendent of the wage bureau in 1945 and

Andrew G. Walther

assistant manager of labor relations in 1948, holding the latter position at the time of his recent appointment to the N.R.A.B.

Mr. Walther, who was born in 1881, began his railroad career as a machinist apprentice, also on the B. & O. He became assistant to the superintendent of the Mt. Clare shops, Baltimore, in 1914, and was assistant supervisor of shops of the B.&O. system at Baltimore when he was named to the N.R.A.B. in 1934.

"More Power to America Special" Ends Exhibit Tour

The General Electric Company's "More Power to America Special" exhibit train has reached the end of its 28,411-mile tour; workmen at the company's Schenectady, N. Y., works are now completing the six-week task of dismantling the 10-car streamliner and its 2,001 exhibits of industrial products and techniques for production and application of electric power.

The train spent 14 months on its tour of the nation's industrial centers, was exhibited in 166 cities from coast to coast and played host to a select audience of 186,993 industrialists and business and civic leaders, 14,668 students and 58,072 G.E. stockholders

News Briefs . . .

. . . The first award of the Milwaukee scholarship—granted each year to a son of an employee—has gone to 17-year-old Gary E. Purdy, of Aberdeen, S. D., whose step-father is a locomotive water tester for the railroad. The award is known as the J. T. Gillick Scholarship, in honor of the former vice-president, operations, who retired in 1948 after 62 years of service.

. . . The New York Central has inaugurated use of diesel-electric locomotives in local passenger service on its West Shore (River division) line. Two road passenger diesels began the service on August 9 between Weehawken, N. J., and Newburgh, N. Y., and West Haverstraw. They presage complete dieselization of the West Shore's passenger service in 1952. Diesel-electric locomotives in yard switching service at several points and on some freight trains have already been placed in operation on the W. S. The two new locomotives of 1600-hp. each were built by the American Locomotive-General Electric Companies. Additional diesels of this type eventually will replace the 22 steam locomotives of Pacific and Hudson types now in service.

. . . As an added safety measure, the Long Island is installing new electric marker lights, replacing old-type oil markers, on all motor cars used on the front and rear ends of electric passenger trains.

. . . Rock Island directors have sent a message of gratitude to every one of the road's employees who had a hand in fighting the disastrous floodwaters in and around Kansas City. In a resolution adopted by the board and mailed to each employee with an accompanying letter, the directors cited the employees for their devotion to duty and their "perseverance and unswerving efforts," that resulted in holding damage to a minimum and in restoration of operations "with commendable promptness."

. . . The last steam locomotive to be repaired in the Baltimore & Ohio's maintenance shop at Glenwood, near Pittsburgh, rolled out on August 31. Hereafter, only diesels will be maintained at the shop, where the road already has spent nearly $900,000 of an allocation exceeding $1,000,000 for installing new diesel facilities. These facilities will be expanded to handle the constantly increasing number of diesels purchased by the road. The last steam locomotive repaired at Glenwood was No. 1065, an 8-wheel switcher.

. . . The New York, New Haven & Hartford's 12:30 p.m. express from New York to Hartford, Springfield and White River Junction, Vt., was christened the "Cigar Valley Express" at September 5 ceremonies in Grand Central Terminal before the train pulled out on its daily run. The train received its new name, which will be permanent, to emphasize the importance of the Connecticut River Valley industry of tobacco raising.

. . . The July floods will cost the St. Louis-San Francisco about $900,000, according to a recent estimate by R. J. Stone, vice-president of operations. Higher car rental costs—due to the Frisco's inability to send trapped cars home—and detouring expenses—for routing Frisco trains on foreign tracks as well as accommodating foreign line trains on Frisco tracks—both contributed heavily to the added operating expenses for the period, he said. The Frisco plans to charge about $500,000 of the total flood cost to July accounts.

. . . The New York Central on August 26 took the first step toward complete dieselization of local passenger service on its main line east of Buffalo. On that date two Budd-built rail diesel cars went into operation between Harmon, N. Y., and Peekskill. The RDC's replaced eight northbound and 10 southbound trains, and several coal-fired steam locomotives which pulled local suburban trains beyond Harmon have been retired. On September 30, the Central also reports, a rail diesel car will go into service on its Buffalo Division between Buffalo Central Terminal, Niagara Falls and Suspension Bridge, N. Y. The "Beeliner" will replace most local trains now pulled by steam locomotives and will make two extra runs daily from Buffalo to Niagara Falls. Four round trips will be made each day on the approximately 50-mi. round-trip run. Present schedules will be shortened by as much as 33 min. on a one-way trip. Making all stops in the present timetable, the "Beeliner" will maintain a 50-min. schedule between Buffalo Central Terminal and Niagara Falls.

. . . The Burlington's 441-mile Casper division will be entirely dieselized by mid-September. Enginehouse facilities at Casper, Wyo., and Greybull are being converted to service the new locomotives and fuel storage tanks capable of handling three million gallons of diesel fuel have been acquired at Greybull. Although the Burlington has long been a user of diesel motive power, the Casper is the first division to be slated for all-diesel operation. Water tanks, fuel oil tanks and other installations used by oil-burning steam locomotives will be retired.

and employees. The tour was a "complete and outstanding success," according to J. Stanford Smith, manager of advertising and sales promotion for the firm's Apparatus Marketing division.

Long Island Demonstrates Automatic Speed Control

The first segment of automatic speed control to be placed in service by the Long Island will go into operation on the railroad's North Side branch, between Long Island City and Port Washington, on September 22, one week ahead of schedule.

This was announced by Frank H. Simon, general manager of the L. I., in the course of a special September 12 demonstration witnessed by members of the newly created Long Island Transit Authority, by members of the New York Public Service Commission, by interested officials of New York City and of Nassau and Suffolk counties, and by representatives of the press.

This initial installation covers 45 multiple-unit electric motor cars, 18.1 miles of line and 28.4 miles of track. It is part of the railroad's comprehensive long-range safety program which was adopted following the rear-end collision of two commuter trains at Kew Gardens last Thanksgiving eve. (*Railway Age*, January 15, page 247.)

Under the system, wayside signal indications are electronically reproduced in cabs of motor cars. Whenever signals change to a more restrictive indication, a warning whistle sounds in the cab; if the engineman fails to apply the brakes within six seconds, they are applied automatically and the train is brought to a stop. The system is so designed that no train may enter or proceed through, at more than 12 m.p.h., any block occupied by another train. The equipment is being manufactured by the Union Switch & Signal Division of the Westinghouse Air Brake Company.

During the demonstration trip William H. Draper, Jr., trustee of the L.I., said he plans to resign from that position by the end of the year to devote his full time to the Long Island Transit Authority, of which he is chairman. "Now that the railroad's safety program and other matters are well under way and that arrangements have been made for financing the purchase of 20 new passenger cars and 12 new diesel locomotives," Mr. Draper indicated that he desired to devote more time to financial reorganization of the company.

U. S. Chamber Tells How To Stretch Car Supply

"Stretching the Freight Car Supply" is the title of an illustrated pamphlet which will be "widely distributed" by the Transportation and Communication Department of the Chamber of Commerce of the United States. The pamphlet is designed to tell shippers and carriers what must be done to make more cars available through efficient handling.

Here is what shippers are asked to do: Load cars fully; load, bill and unload promptly; load and unload six days a week; use no cars for storage; clean cars before releasing; try to load cars in the direction of owners' lines.

Carriers, said the chamber, should: Spot and pull cars promptly; speed up terminal and line-haul operations; distribute car supply efficiently; avoid accumulation of cars; repair bad order cars promptly; give maximum six-day service.

Unless such steps are taken, the present shortage of "approximately 20,000 cars a day" will increase with the fall pick-up in traffic, the pamphlet said. It also noted that construction of new cars is hampered by material shortages, "which do not show promise of being corrected."

New P. & D. Charges Effective in East

New charges for pick-up and delivery service within Eastern territory became effective September 10, but plans to apply such charges interterritorially were suspended by the Interstate Commerce Commission. The suspension runs until April 9, 1952. The charges that became effective in the East apply on traffic moving under l.c.l. or any-quantity rates for 300 miles or less.

The tariffs ending free pick-up and delivery service on interterritorial shipments to and from the East were suspended after protests were filed by the Office of Price Administration and others. O.P.S. said the charges would be "arbitrary, unreasonable and discriminatory."

The agency also objected to the new

GO BY RAIL --avoid "over-the-road" hazards--
enjoy train luxury and comfort on long trips and when you get there--enjoy a new car from Hertz--drive it as your own--
RENT A NEW CAR FROM
HERTZ
drive it as your own

A BOOST FOR THE PASSENGER BUSINESS—which the Hertz Driv-Ur-Self System has arranged to have appear in the Saturday Evening Post later this week. Further to plug the rail-auto travel plan, Hertz recently introduced an incentive setup whereby railroad ticket agents may earn a 10 per cent commission on car rentals secured from railroad passengers. Hertz's association with the railroad passenger business may be traced back to 1927 and an advertisement which offered rental cars to railroad passengers desiring to visit certain off-line seaside communities in California. Reprints of its newest ad (above) are being sent through the five regional passenger associations to between 12,000 and 15,000 interline agents for posting on station bulletin boards. All Hertz system members will receive easel card versions

charges within the East. According to Eastern roads, these charges are designed to make pick-up and delivery service more self-supporting. They are new charges on pick-up and delivery service, and not "increased" charges, as implied in *Railway Age* of September 10, page 57.

Unions, Management Talk On "State of the Railroad"

A report on the current state of the Chicago & Eastern Illinois was given to 18 union leaders in Chicago on September 5, when President Clair M. Roddewig and other officers and department heads of the C.&E.I. participated in a special labor-management conference.

The meeting—which lasted for two and one-half hours—was the fourth of its kind which the railroad has called. It was conducted along the same lines as an annual meeting between management and stockholders, with a considerable portion of the time devoted to an open question period. The labor representatives expressed interest in such matters as current and prospective business, improvements to freight and passenger services and new operating equipment and maintenance tools.

A detailed report on the physical and financial condition of the road, its policies and business prospects, was first presented to the union men by Mr. Roddewig. His statement was supplemented by charts, graphs and reports elaborating in detail every aspect of the corporation's past and present operations and conditions. The question period followed. On hand for the meeting were labor representatives from 18 railroad unions, collectively representing some 3,800 C.&E.I. employees.

Harriman Safety Awards To Be Made September 20

E. H. Harriman memorial gold medals for the best safety records in 1950 among domestic railroads will be awarded at a dinner in the Hotel Ambassador, New York, on September 20. The Union Pacific will receive the gold medal for class A railroads, the Pennsylvania-Reading Seashore Lines for class B railroads, and the Cambria & Indiana for Class C railroads. (Carriers are classified according to the number of locomotive-miles they operate yearly.)

Certificates of commendation, for outstanding performance in railroad safety, will be awarded to the following: Eastern district—class A, Reading, class B, Western Maryland; class C, New York, Susquehanna & Western; Western district—class A, Missouri-Kansas-Texas; class B, Duluth, Missabe & Iron Range; Class C, Colorado & Wyoming; Southern district—class A, Chesapeake & Ohio; class B, Gulf, Mobile & Ohio; class C, Tennessee Central. Certificates of commendation also will be awarded to these switching and terminal companies: Group ST-1, Cleveland Union Terminal; group ST-2, Indianapolis Union.

The awards will be presented by James G. Lyne, editor of *Railway Age* and chairman of the award committee of the American Museum of Safety. Reginald M. Cleveland, president of the museum, will preside. R. W. Brown, chairman of the Reading's executive committee, will deliver an address. Julien H. Harvey, chairman of the Arthur Williams memorial award committee, will present the Arthur Williams memorial medal to Rudolph F. King, Massachusetts registrar of motor vehicles.

Founded in 1913 by the late Mrs. Mary W. Harriman, in memory of her husband, Edward H. Harriman, the awards determined on the basis of official Interstate Commerce Commission records, have been given 31 times before by the museum.

Freight Car Loadings

Loadings of revenue freight in the week ended September 8, which included the Labor Day holiday, totaled 732,908 cars, the Association of American Railroads announced on September 13. This was a decrease of 96,483 cars, or 11.6 per cent, compared with the previous week; a decrease of 18,541 cars, or 2.5 per cent, compared with the corresponding week last year; and an increase of 108,946 cars, or 17.5 per cent, compared with the equivalent 1949 week.

Loadings of revenue freight for the week ended September 1 totaled 829,391 cars; the summary for that week, as compiled by the Car Service Division, A.A.R., follows:

REVENUE FREIGHT CAR LOADINGS

For the week ended Saturday, September 1

District	1951	1950	1949
Eastern	140,192	148,738	126,564
Allegheny	172,540	174,391	133,176
Pocahontas	65,486	63,187	48,563
Southern	124,097	128,884	104,514
Northwestern	138,591	143,703	124,610
Central Western	123,648	130,220	111,951
Southwestern	64,837	62,718	54,556
Total Western Districts	327,076	336,641	291,117
Total All Roads	829,391	851,841	703,934
Commodities:			
Grain and grain products	51,175	50,685	45,456
Livestock	10,159	9,387	11,077
Coal	150,685	155,531	120,882
Coke	15,458	14,893	9,178
Forest products	45,711	49,732	37,103
Ore	84,855	83,296	63,260
Merchandise l.c.l.	76,308	90,836	83,858
Miscellaneous	394,040	397,481	333,120
September 1	829,391	851,841	703,934
August 25	838,587	838,665	747,211
August 18	829,398	851,240	731,215
August 11	809,354	847,708	728,029
August 4	813,366	837,430	718,863
Cumulative total 35 weeks	27,029,645	25,130,037	25,126,398

In Canada.—Carloadings for the week ended September 1 totaled 82,535 cars, compared with 82,585 cars for the previous week and 47,702 cars for the corresponding week last year,

DAVID W. PYE DIES

David W. Pye, who retired recently as president of Tuco Products Corporation and as executive secretary-treasurer of the New York Railroad Club, died in New York on September 8, after an illness of many months. "Dave" Pye was given the title of "Mr. New York Railroad Club" in the inscription engraved on a gold cup the club presented to him following his retirement from active service last November, and the characterization was no exaggeration. His services to that organization, in arranging its meetings, facilitating its committee work and smoothing the work of the elected officers, were widely recognized as largely responsible for the efficient functioning of the club over the past three decades. Mr. Pye became treasurer of the club in 1918 and was elected, also, as executive secretary early in 1932. He had been a member since 1895.

David Pye was born in Brooklyn, N. Y., on November 5, 1876. After receiving a business college education, he entered the railway supply business and was purchasing agent and vice-president of the Safety Car Heating Company before he joined Tuco Products, which he later came to head. He had wide interests in other manufacturing operations, and operated a farm in Western Missouri. His business and social life were one—knit together and based upon the deep loyalty of wide personal friendship, to which it may be said without exaggeration that Dave Pye contributed a quality of religious devotion. He was the type of person who brings people together, making it easier for them to see eye-to-eye than they would ever do if left to their own devices. Society could not hold together without such men; and organized activity of any kind is impossible without them.

according to the Dominion Bureau of Statistics. The low level of loadings in the 1950 week was due to the Dominion-wide strike of non-operating employees on Canadian railroads, which began on August 22, 1950, and ended late on August 30.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
September 1, 1951 ..	82,535	33,001
September 2, 1950 ..	47,702	22,120
Cumulative totals for Canada:		
September 1, 1951 ..	2,776,508	1,216,130
September 2, 1950 ..	2,489,161	1,064,670

Waybill Study

Another waybill study has been issued by the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission. It is statement No. 5135, Mileage Block Distribution of Traffic and Revenue in Classes 701 through 799 and 950 of the Manufactures and Miscellaneous Group—by Commodity Class, Territorial Movement and Type of Rate (All Termination in 1950).

I.C.C. Would Prohibit Face Babbitt on Main Rod Ends

A recommendation "that application of face babbitt to crosshead ends of main rods be prohibited; that tool marks or surface defects be eliminated from highly stressed rod sections and that filleted corners be properly maintained," has been made by the Interstate Commerce Commission as a result of its investigation of an accident on the Pennsylvania-Reading Seashore Lines near Delair, N. J., on July 20.

The report, by Commissioner W. J. Patterson, states that the accident occurred while the locomotive (Reading 4-6-2, class G1-Sa, No. 130, built in 1924) was hauling an 8-car P.-R.S.L. train at a speed of about 50 m.p.h. The fireman was killed and the engineman fatally injured, but there was no derailment of the train and only minor damage to the track. Damage to the locomotive consisted of the broken main rod; badly torn throat sheets; and damage to the running board, main reservoir, air radiating pipes and a number of flexible staybolt sleeves and caps.

The broken rod was of "I" section, medium nickel-carbon steel, with the outside face of its front end built up with babbitt metal to compensate for lateral wear. This built-up portion of babbitt metal, the report said, was approximately ⅛ in. thick. The failure of the rod occurred at the front end of the bottom section of the front brass fit, 2⅜ in. ahead of the center line of the wrist pin, through a progressive fracture which started at a gall mark under the babbitt-metal liner on the outside face of the rod and progressed inward. Approximately 50 per cent of the progressive fracture appeared to be of long standing, 48 per cent was of more recent origin and the remaining 2 per cent new. The top section of the rod also broke at the front end of the brass fit, 2⅜ in. ahead of the center line of the wrist pin, this being a 100 per cent new shock break. All other parts of the engine were reported to be in good order and working properly and inspection reports showed no item which might have had a bearing on the accident. There had been no trouble with either locomotive or train prior to the accident.

"The point of origin (the report said) of the primary progressive fatigue fracture appeared to be in a gall or tool mark at the corner of the outer face of the rod and the top surface of the lower rail and was hidden beneath the face babbitt that had been applied because of excess lateral wear.

"Mechanical conditions were particularly favorable to development of fatigue fractures at the point of failure and included the following factors:

"A. Heavy tensile stresses in the top and bottom rails which varied from zero to a maximum on each forward piston stroke.

"B. Development of sharp corners of the box section resulting from wear of the outer and inner faces of the rod and which, because of stress concentration, were subject to cracking.

"C. Presence of gall or tool marks at or adjacent to stress concentrations in which the notch effect would promote cracking.

"D. Application of face babbitt could adversely affect the results of a magnaflux test."

MORE NEWS ON PAGE 93

Additional general news appears on page 93 followed by regular news departments, which begin on the following pages:

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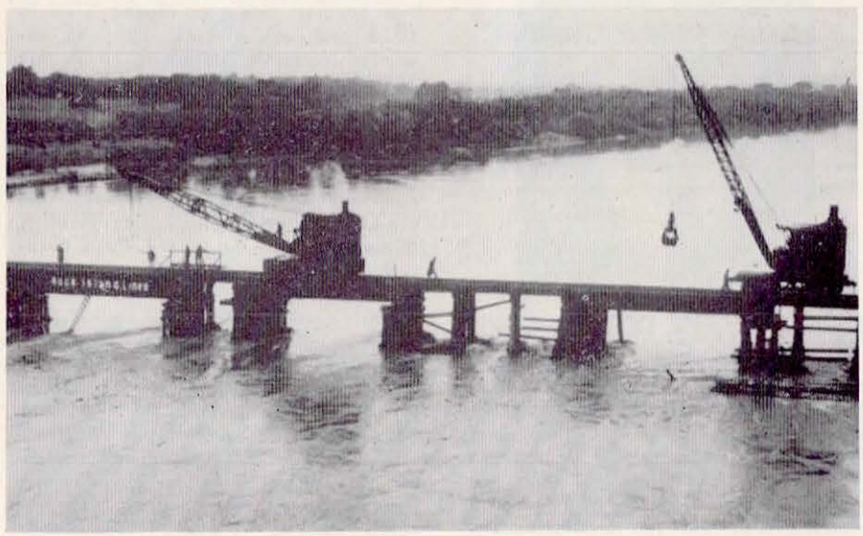
Terminal Congestion Cause Of Canadian Grain Crisis

Difficulty in unloading grain on completion of its rail haul, rather than any shortage of freight cars, is the primary cause of the crisis in movement of western Canadian grain crops, Donald Gordon, chairman and president of the Canadian National, said in a recent address at Toronto.

"Through April, May, June and July," Mr. Gordon declared, "the C.N. moved a daily average of 508 cars from the prairies, a quantity that surpassed the quota set by the Canadian Wheat Board. Congestion in lakehead terminals developed to the point where we had as many as 4,400 cars in yards awaiting unloading. The average number detained during July was around 2,000 cars."

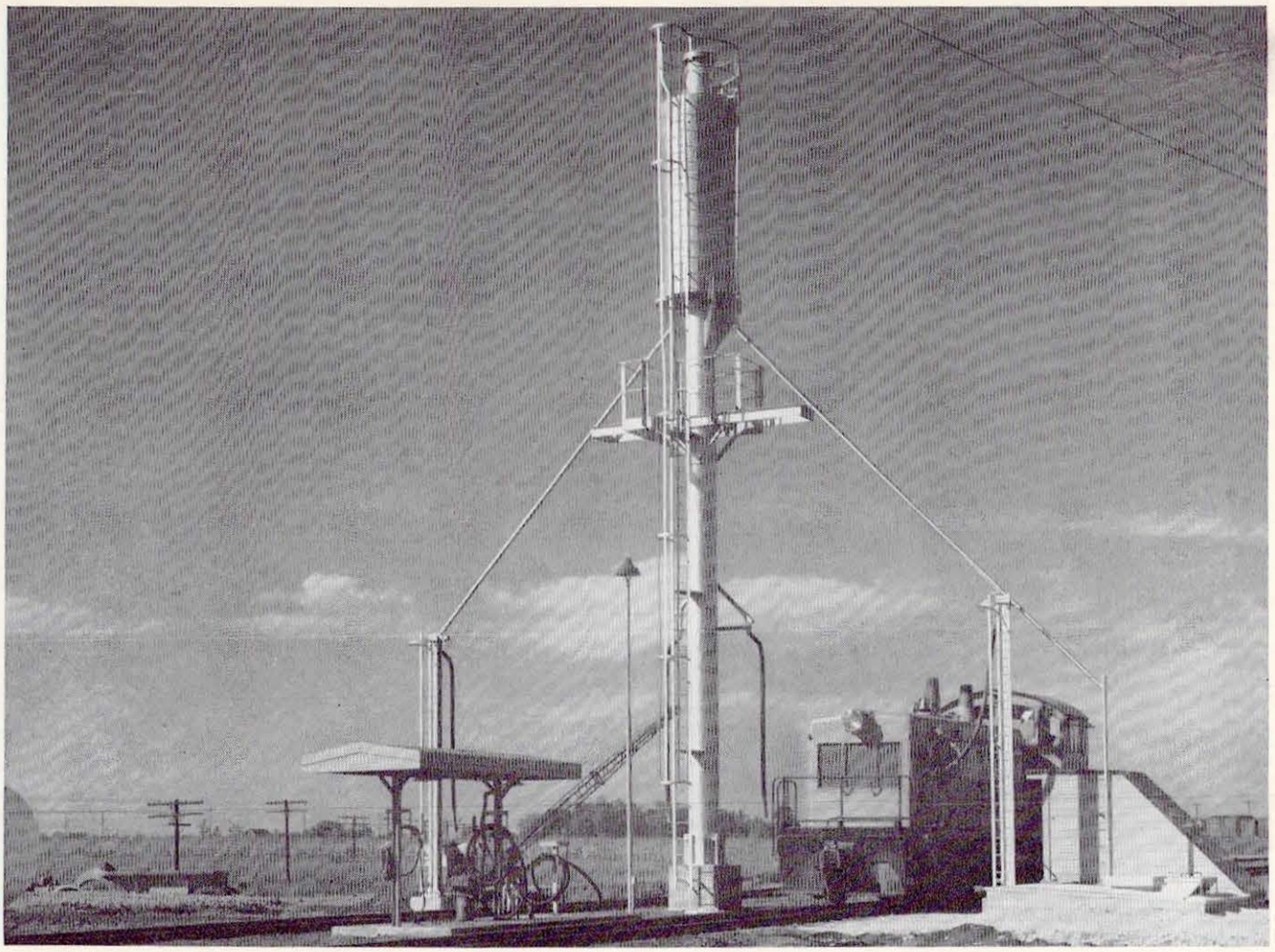
It was uneconomical, he continued, to use box cars as "warehouses on wheels" when the railways are "hard pressed" to meet requirements for moving wheat and other commodities. To avoid aggravating terminal congestion it has been necessary to make adjustments in the loading of cars at prairie points, where the C.N. now has some 24,000 box cars ready for grain and other traffic offerings, he said.

As reported in last week's *Railway Age*, page 35, the Canadian government has recently appointed a transport controller to determine priority of movement to be given to grain or other bulk commodities.



Acme Telephoto

IN VAIN.—Just a short time after this picture was taken, 16 panels of the Rock Island's temporary bridge at Topeka, Kan., gave 'way to the force of the again-swollen Kaw river. Here locomotive cranes are removing accumulated debris in an effort to relieve some of the pressure against the piling. Shortly before cresting on September 6, the river claimed the bridge just as it had the previous steel structure during the flood last July



Modern fueling and sanding facilities at a small terminal

What Are the Trends in DIESEL LOCOMOTIVE FUELS?

Increasing pressures for broader specifications, a result of changing refinery practices and competition for middle fractions, discussed at Pacific Railway Club symposium

The complexity of diesel locomotive fuel problems was brought into sharp relief by a discussion which took place as a part of a general symposium on railway diesel problems sponsored jointly by the Pacific Railway Club and the Standard Oil Company of California. The conference, held at the Richmond, Cal., laboratories of the California Research Corporation, a subsidiary of the oil company, on May 15 and 16, was attended by representatives of the railroads, locomotive builders, appliance manufacturers and oil refining industry.

Developments in refining and their significance with respect to locomotive diesel fuel were reported by L. F. Schimansky of California Research Corporation. A survey of diesel fuel problems from the standpoint of the railways, both current and prospective, was presented by R. W. Seniff, engineer of tests of the Baltimore & Ohio.

The experiences of three railroads with diesel locomotive fuels were set forth in prepared discussions by E. B. Fields, engineer of tests of the Atchison, Topeka & Santa Fe; T. A. Tennyson, chief chemist of the St. Louis Southwestern, and R. A. Bardwell, engineer of tests of the Chicago & Eastern Illinois.

Growing Demands for Petroleum

Comparing the demands for petroleum products of 1941 and 1951, Mr. Schimansky said that the demand for middle distillates of crude petroleum increased from 717,000 barrels per day to 1,550,000 barrels per day. This is equivalent to an increase from 18.6 per cent of the crude run in 1941 to 25.4 per cent of the crude runs in 1951. These distillates take in kerosene, the various grades of heating oils, and the fuels for various types of diesel engine service.

From practically zero in 1941, the fuel demands of railway diesel locomotives increased to 56,000 barrels per day in 1947 and to 148,000 barrels per day in 1951. In terms of the total crude runs, this represents an increase from 1.1 per cent in 1947 to 2.4 per cent in 1951 and, in terms of the total middle distillates, an increase from 5.1 per cent in 1947 to 9.6 per cent in 1951. In the meantime, the crude runs have increased from 3,861,000 barrels per day in 1941 to 5,053,870 barrels per day in 1947 and to 6,111,000 in 1951.

Manufacturing trends in the refinery field are toward the development of the thermal and catalytic cracking processes to increase the yield of gasoline at the expense of the yield of residual fuels. The increase in the demand for diesel fuels has led to the use of cracked stocks in addition to the straight-run distillates more commonly used. These are resulting in changes in the fuel characteristics and creating some problems of compatibility and stability where fuels are mixed in storage.

The increasing demand for other products which are in competition for the same volatility range of raw materials is an important factor affecting the availability of a future supply of locomotive diesel fuel. These products include not only the heating oils, but gasoline and jet fuels. The raw material for catalytic cracking covers substantially the same boiling temperature range as the diesel fuels, and jet fuels cover the locomotive diesel fuel range plus most of the gasoline range. Industrial and bunker fuel oils are the charging material for thermal cracking stills.

Information presented by Mr. Schimansky showed that locomotive diesel fuel specifications are more restrictive than general diesel fuel specifications. The quantities of diesel fuels used are small in comparison to total petroleum products and to total middle distillates. This means that slight relaxations of the specifications, particularly with respect to flash point, sulphur and cetane number, would effect a relatively large increase in yield. Promising to add to the practicability of such a course is the development of additives for cetane improvement and to overcome instability in storage. To maintain the quality of fuel required to meet present specifications for diesel locomotives seems likely to increase the cost.

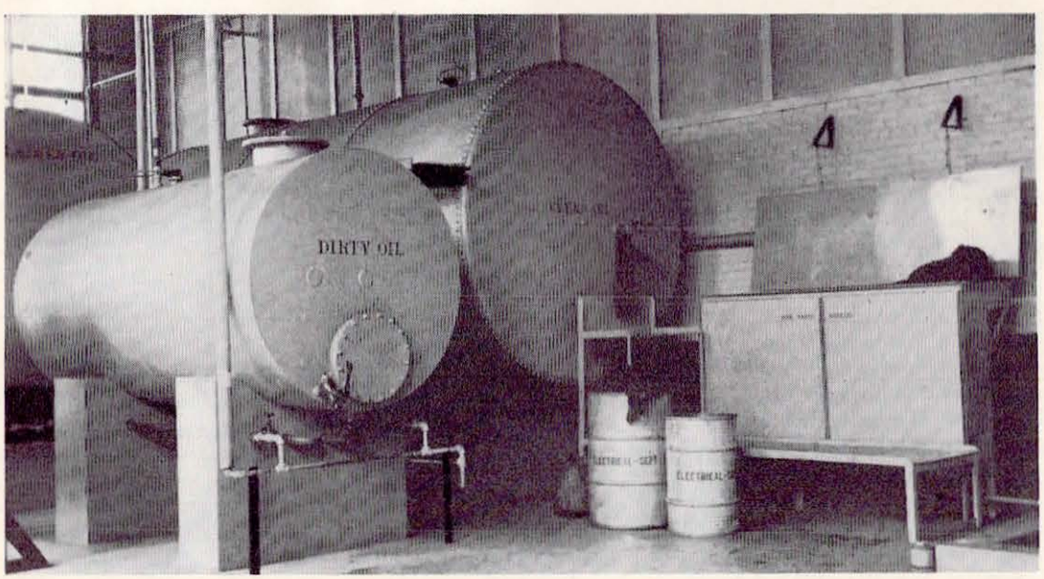
Outlook for Fuel Standardization

"As recently as a year ago," said Mr. Seniff in his introduction, "it was comparatively simple to speak of standardization of railway diesel fuel, because the situation was relatively stable. Today, it is impossible to do so without taking into account certain new existing factors and considering the possibility of certain future developments. Under their influence, diesel fuel quality in its relationship to supply takes on new significance which requires a new and more fundamental approach."

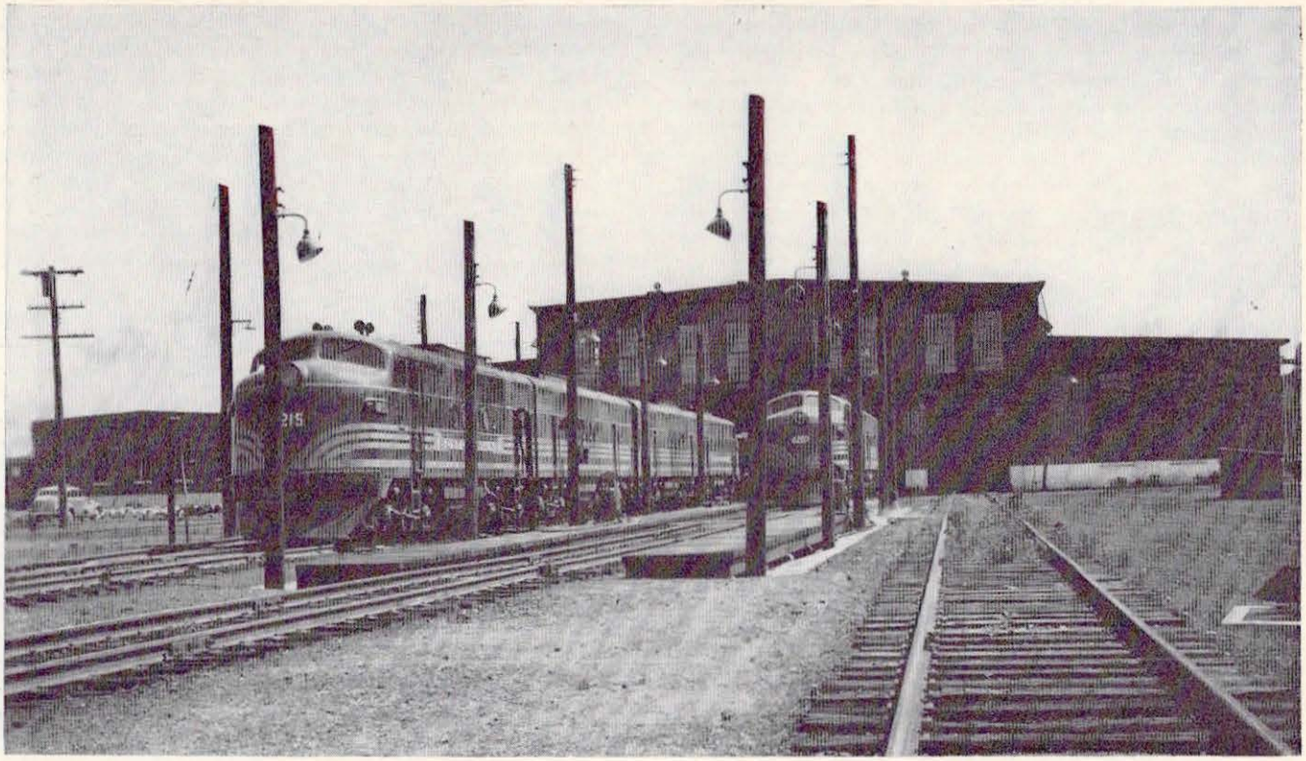
Railroad specifications, he said, have described in the light of existing knowledge what railroad diesels will burn satisfactorily under service conditions. They depend upon knowledge of the diesel's tolerance for various fuel characteristics. It is important, therefore, that we know future diesel fuels—where they come from, their characterictics, and how engines will live with them—well in advance of any significant change in quality and supply. Barring undesirable foreign developments, the railway diesel fuel supply will probably continue to be satisfactory in the future.

Mr. Seniff considers three major and several minor problems pertaining to specifications and standardization of railway diesel fuels looking toward the ability to meet changes now under way in refining operations and crude sources.

First are peacetime problems. In Mr. Seniff's opinion, there should be uniform specifications shared in common by the railroads and the railroad diesel engine manu-



The railroads are taking a growing, but still small, fraction of the nation's petroleum output.



A multiple-track diesel fueling installation

facturers which describe the widest range of fuels which the engines will burn successfully. The most restrictive specification will determine what fuel a railroad operating engines from all manufacturers will buy. Engines should be able to use the full range of fuels covered by A.S.T.M. specification D 975-50T 2-D, the most reasonable classification from the standpoint of availability from the refiner.

Certain thermally cracked stocks "spoil" in storage. Means for specifying and determining in the laboratory permissible tolerances of fuel stability in storage are needed. Incompatibility of diesel fuels has also been experienced. No recognized means are now available for specifying or testing to detect this property.

Cetane number is commonly understood to be associated with starting ability. Does it and its distribution in the fractions have any other effects on the operation and maintenance? If so, what are they?

Some railroad fuels offered today are 100 per cent catalytically cracked. They will probably increase. What is their effect?

How far can the range of each fuel characteristic be broadened without interfering with operation, maintenance and safety? Statistical information on railway fuels used, by quality and quantity, similar to that of the Bureau of Mines* should be assembled annually by some agency, preferably the Association of American Railroads, for the use of the railroads and engine builders, Mr. Seniff suggested. Such data would permit the comparison of performance and maintenance of locomotive diesels under service conditions using various grades of fuel.

To what extent can the ill effects of lower grade fuels be offset economically by the use of special lubricating oils? Experience in the field indicates that the performance levels of lubricants and fuels are so closely related that one cannot be considered without the other.

A.S.T.M. Specification 2-D is too broad to be used as a purchase specification, Mr. Seniff said, because there are significant differences in wear rates and maintenance costs of engines using the better and poorer fuels within that range. The railroads should know how the fuels within that range affect their costs and then specify within that range to their advantage in their respective geographical locations. It may be profitable or necessary for the railroads in one section to use a poorer fuel within the A.S.T.M. 2-D range, while those in another section are confronted with the opposite situation. It seems, therefore, that while the engine builders should standardize their specifications because the use of their locomotives is nationwide, the railroads, on the other hand, should not standardize because their sources of supply are local and affected by local conditions.†

The Preparedness Period

The second group of problems considered are those of the period of preparedness. A railroad-Coordinating Research Council full-scale service test of diesel fuel was already in progress at the beginning of the national preparedness period. One question which needed an answer was whether this would yield adequate information relative to railway diesel fuel quality in case of a full emergency. The second was to determine, in case the

*U.S. Bureau of Mines "Report of Investigation No. 4746 National Annual Diesel Fuel Survey 1950," by O. C. Blade. U.S. Department of Interior, November 1950.

†Mr. Seniff noted that many of the problems mentioned are already under study by the Coordinating Research Council and referred to the Coordinating Research Council Annual Report for the year ended June 30, 1950, dated August 1, 1950.

answer to the first question was negative, what direction diesel fuel research should take in order to prepare the railroads for a possible national emergency. The A.A.R. arranged for a briefing on this subject by the Petroleum Administration for Defense.

The answer to the first question was a qualified negative. The fuels now covered by the test project referred to above—that is, one per cent sulphur, 40 cetane, and 700 deg. F. end point—may serve for the preparedness period.

The demand for jet fuel in a full emergency will be enormous and may take the lower half of the present railroad diesel fuel and heating fuels, leaving the heavy ends having extremely high pour points. Just how can the railroads compensate for this?

An emergency C.R.C. panel was appointed to survey the situation in cooperation with the P.A.D., the engine builders, and oil refiners. As soon as the survey is completed, all engine builders will test typical full emergency fuels selected by the panel. From the findings of these tests the panel will recommend to the railroad full-scale field test group whether these fuels are sufficiently promising to go into service testing. Plans are to get service tests under way this year. This is intended to determine the lowest grade of fuel which the railroads can use successfully in an emergency.

Shale Oils

Mr. Seniff also called attention to the tests of diesel fuel from shale which have been arranged jointly between the Denver & Rio Grande Western and the Bureau of Mines, coordinated by the Coordinating Research Council Railroad Fuel Test Group, as a possible source of additional fuel supply for a full emergency. He emphasized that in the final analysis the effects of fuel, lubricating oil and engine characteristics all must be considered together in order to determine the best combinations which will produce tolerable performance and maintenance levels in railroad diesels under emergency conditions.

Solving the third group of problems—those of the full emergency period—must really be completed during the preparedness period. In a full-scale emergency the specifications for diesel fuel are apt to change rapidly and performance levels of lubricating oil, which are affected by the fuel, are apt to change as rapidly as the performance levels of the fuel. Correct balance between the two will be an important factor in railway diesel performance. The organization is already set up for cooperative research between all railroads, all engine builders, and all oil refiners with the advice and counsel of the Petroleum Administration for Defense.

Western Diesel Fuels

Mr. Fields, in his discussion presented a table of characteristics of the fuels purchased by the Santa Fe, showing range of flash points of oils purchased in 1947 and earlier from 162 deg. to 182 deg. and of those purchased during the current year from 150 deg. to 212 deg. Viscosity (seconds, Saybolt Universal at 100 deg. F.) ranged from 33.5 to 36.5 during the earlier period and from 33 to 38 currently. Carbon residue (Ramsbottom, on 10 per cent residuum) varied from 0.10 to 0.25 per cent during the earlier period and from zero to 0.5 per cent in the current period. Sulphur ranged from 0.07 to 0.55 per cent during the earlier period and from 0.03 to 0.53 per cent during the present year. Copper corrosion was negligible throughout. Cetane ranged from 51 to 56 during 1947 and earlier and from 42 to 59 during the current year. End point varied from 596 to 616 deg. F. during the first period and from 571 deg. to 695 deg. during the current year.

Mr. Fields presented a table comparing the A.S.T.M. Standard D975-50T specification with that of the Santa Fe. The latter specification calls for a higher flash point than any of the grades in the specification. The hazards involved in the storage of large quantities of diesel fuel for railroad use in his opinion require the higher flash point.

The experience of the Santa Fe with oils having high pour point has demonstrated the need for a pour point insuring fluidity at much lower temperatures than specified for any of the A.S.T.M. grades. The limit on sulphur in the railroad specification coincides with that of the A.S.T.M. 1-D grade, but is more restricted than that of the other two grades.

Unless all sources change radically and simultaneously, Mr. Fields believes that it should be possible to obtain considerable quantities of satisfactory fuel oil for railroad use by judicious purchase and distribution in railroad storage tanks, but that the problems of compatibility and possible deterioration in storage will have to be considered. He stressed the value of certain gas oil fractions for blending in diesel fuel oil as a means of providing satisfactory fuels in large quantities without too much deviation from present standards.

It is not a question of the diesel engine being able to burn the fuel, but of being able to burn it over a long period without damage to itself which must determine the standards of diesel fuel quality.

Midcontinent Fuels

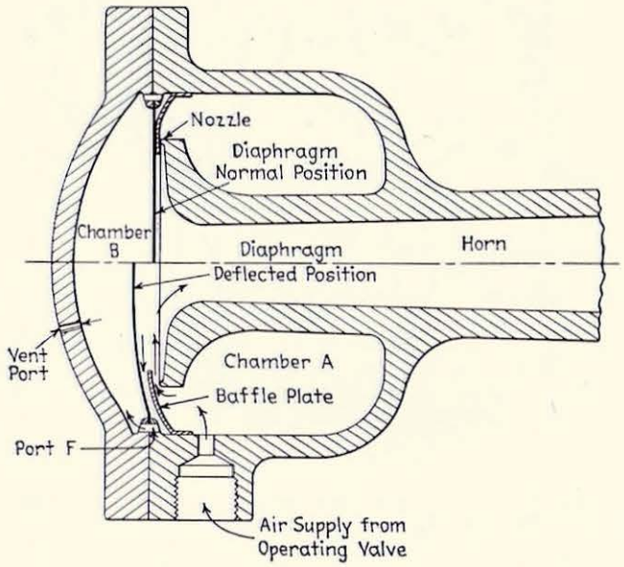
Experience with midcontinent diesel fuels was related by Mr. Tennyson. The St. Louis Southwestern receives practically all its diesel fuel from refineries producing straight distillation products, more than half of it from small refineries. The picture is changing, however, since one refinery is at present installing a catalytic cracking unit. This leads to concern as to the effects of the cracked fuels on storage and handling problems. The availability of straight run fuel in this area is being reduced because railroads in other areas are buying it, regardless of sulphur content.

The straight run fuels in this area test well within the characteristics of the specification requirements originally proposed by the engine builders. Cetane numbers run above 50, some as high as 70. Viscosity (seconds, Saybolt Universal at 100 deg. F.) averages around 35.5. Initial boiling points range between 370 and 410 deg. F. and the end point is below 660 deg. F. Flash point runs 160 deg. F. or higher. For several years there has been a gradual rise in pour point from 10 to 20 deg. below zero to zero or even above.

Sulphur varies from 0.05 per cent to 0.70 per cent. A study of one fuel which has a sulphur content of 0.70 per cent showed negative action in the copper test and no sludge formation, indicating stable sulphur compounds. This fuel has been used extensively in one 2,000-hp. supercharged locomotive for two years and one 1,500-hp. locomotive for one year, with no indications of any harm from the high sulphur content.

The experience of the C. & E. I. reported by Mr. Bardwell indicates that oils with relatively low sulphur (0.3 per cent) may cause corrosion and breakdown of the fuel. One completely cracked fuel caused filter troubles during the summer months and it was replaced by a more highly refined fuel.

Some New Products of Manufacturers in the Mechanical Field



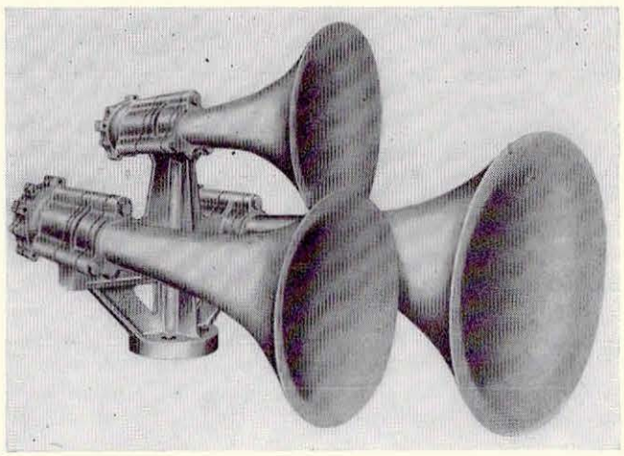
Schematic section of the power chamber of the Leslie-Supertyfon horn

LESLIE-SUPERTYFON LOCOMOTIVE HORN

The chime type of air horn is a more pleasing sounding device than its brother, the single-tone air horn. Musical chords, considerations of overtones and fundamentals were the chief concern of the Leslie Company, Lyndhurst, N. J., in getting its Chime-Tone air horn to sound like the steam chime. The result is a multiple horn device ranging from two to five units, depending upon the chord and power desired.

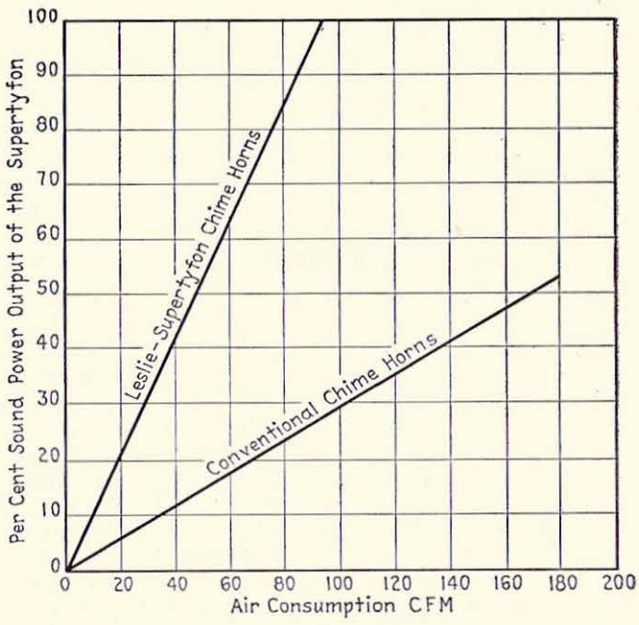
After working several years in developing tone, air consumption, power output and dependability of horns of this type the engineers of the Leslie Company began a new series of investigations and finally have settled upon a new principle incorporated in an invention of Gustav Broden, development engineer of Kockums Mekaniska Verkstad Aktiebolag, Malmo, Sweden. Negotiations which involved conferences between the engineering departments of both companies culminated in a manufacturing agreement. The new horn is now known in the United States and Canada as Leslie-Supertyfon.

Generally, when high sound outputs are generated by a vibrating diaphragm, high stresses are experienced within the diaphragm and the constant flexing and reversal of the stresses causes the diaphragm to fail from fatigue. In the power chamber of the Leslie-Supertyfon a unique valving arrangement formed by the diaphragm itself as it vibrates permits the use of the operating air to move the diaphragm in both directions. As a result, it is possible to use a much lighter diaphragm of more flexible character than would normally be employed in such a device.



A three-tone Leslie-Supertyfon chime horn

The principle of operation is as follows: When the air-horn operating valve is opened to blow the horn, high-pressure air is admitted through a port to chamber *A*, building up the pressure in *A*. This pressure exerts a force on the diaphragm through the flexible baffle plate, tending to force it away from the nozzle and, at the same time, away from the baffle plate. As soon as the diaphragm moves away from the nozzle and baffle plate, air is permitted to escape past the diaphragm into the horn and at the same time through port *F* to the back of the diaphragm (chamber *B*). The build-up in pressure



A comparison of sound power output in relation to air consumption of chime horns

in chamber *B* exerts a force on the diaphragm, resisting further travel, and, by virtue of the greater effective diaphragm area exposed to chamber *B* as compared to chamber *A*, tends to restore it to its original position.

At the same time as the air pressure is being fed into chamber *B* and out through the horn the pressure in chamber *A* tends to fall, which also reduces the tendency for the diaphragm to travel away from the nozzle and allows the pressure in chamber *B* to exert its restoring force. Pressure in chamber *B* also leaks off through the vent port in the cover to the atmosphere so that when the diaphragm has returned to its normal position against the nozzle and against the baffle plate, cutting off the supply to chamber *B*, the pressure will fall and the pressure in chamber *A* will again rise to the point where the diaphragm can be deflected and the cycle repeated.

It is this patented valve action that keeps the diaphragm deflection and stress low and permits the use of a very thin flexible member which always operates at stresses well within its proportional limit and, as a consequence, gives long diaphragm life.

The use of the air in this new principle is extremely efficient and is best realized by referring to the graph of conventional air horns versus the Leslie-Supertyfon for power output versus air consumption. This records the results of comparative tests. The sound power output, which was measured in decibels, is plotted in per cent of the maximum output of the Supertyfon. It will be seen, for instance, that an output of 50 per cent of the new horn's capacity is produced with an air consumption of about 48 c.f.m., whereas the same sound output from a conventional horn requires an air consumption of 170 c.f.m., and that the full output of the new horn is produced with an air consumption of about 95 c.f.m.

There are no adjustments to be made or go out of order as the Leslie-Supertyfon is entirely self adjusting. Extensive tests in the United States and several years' service in Europe have verified the advantages of this type of horn.

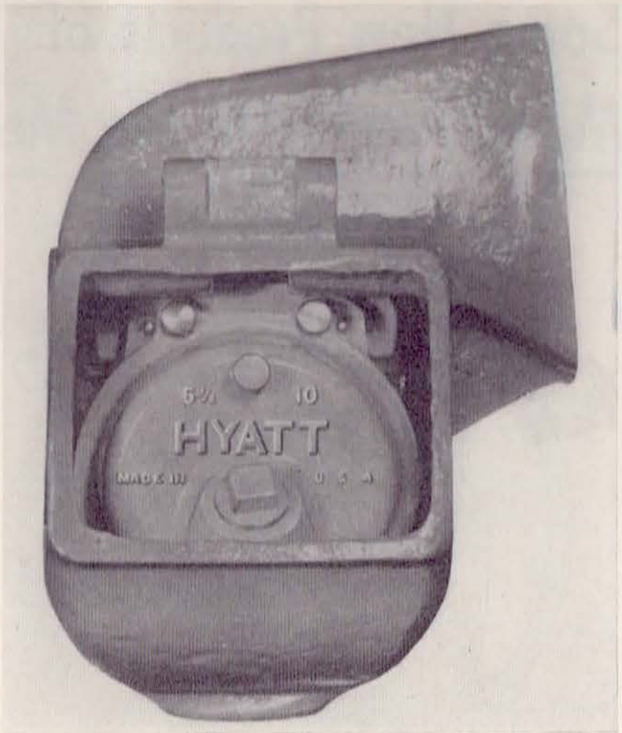
In addition to the patented power chamber, the Leslie-Supertyfon incorporates a true musical instrument design of horn or bell and produces tones which, when sounded together as a musical chord, are said to be close to the tones of the old steam whistle which was built like an organ pipe.

The Leslie-Supertyfon chime horn is available in a choice of chords to simulate different types of locomotive steam whistles and can also be used as a single-tone when desired.

HYATT ROLLER BEARINGS FOR FREIGHT-CARS

A line of roller-bearing journal boxes for freight cars has been developed by the Hyatt Bearings Division of General Motors Corporation, Harrison, N. J., which are designed to fit conventional freight-car trucks with both the integral-box-type and pedestal-type side frames. They can be installed to replace existing plain-bearing equipment with minimum alterations to the truck side frames.

The Hyatt freight-car journal boxes are grease lubricated. The bearings are of the straight radial type which are said to give maximum load-carrying capacity in the space provided. Thrust loads are taken against liberally proportioned race flanges. The radial construction of the bearings permits car axles to float laterally within predetermined limits, reducing sidewise shocks and wheel-flange wear.

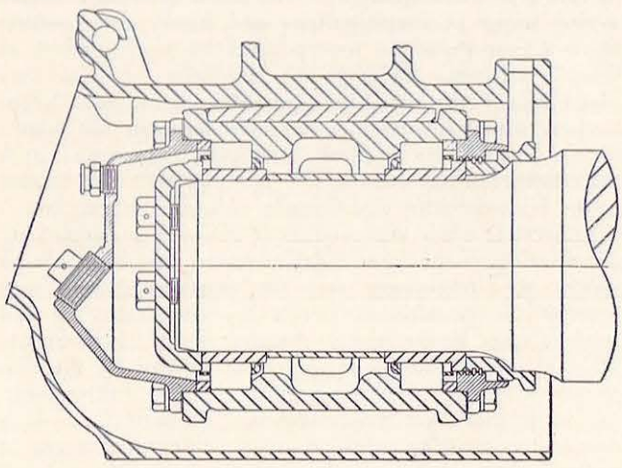


Hyatt freight-car journal bearing installed in the journal box of an integrally cast side frame

All bearing and box parts are accessible for cleaning and inspection. Both the journal boxes and the bearings can be removed from the car axles without breaking the race fits. Spare wheel and axle sets may be stored with the inner races, spacer and thrust rings in place, but without complete journal boxes, thus reducing spare parts inventories.

The Hyatt housings for integral-box-type side frames are designed so that they can be reversed top to bottom to present a new wearing surface in the bearing load zone. This increases the usable life of the unit.

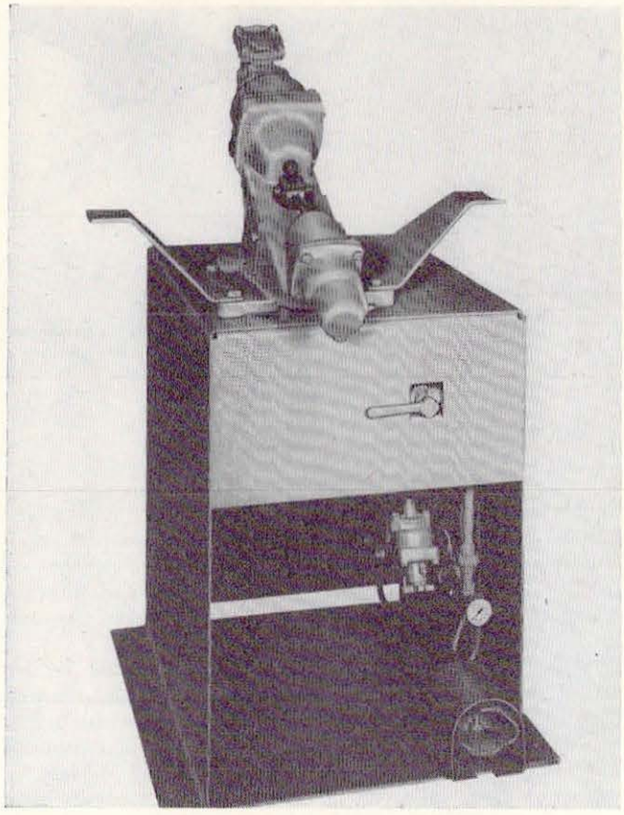
How the bearings are assembled on the axle and inserted in the journal box is shown in the sectional view



Sectional view of the Hyatt freight-car bearing unit assembled in the plain-bearing journal box

of the bearing unit in the journal box of an integrally cast freight-car truck side frame. The same procedure as to maintenance which has been developed on Hyatt journal boxes on diesel locomotives and passenger cars applies to the new line of freight-car bearings.

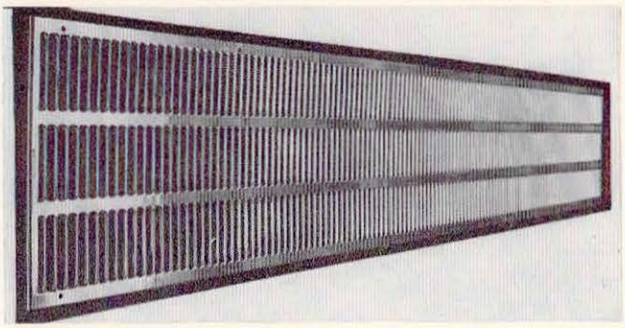
The freight-car bearing is on exhibit at Hotel Sherman, Chicago, during the meetings of the Coordinated Mechanical Associations this week.



The Westinghouse B-1 hose-clamping machine for applying Punch-Lok clamps

WESTINGHOUSE MACHINE APPLIES PUNCH-LOK CLAMPS

A hose-clamping machine for applying Punch-Lok clamps to air-brake hose is now being marketed by the Westinghouse Air Brake Company, Wilmerding, Pa., after being under development for several years. This company has adopted these clamps as its standard for air-brake and signal hose. Designed to apply the clamps with uniform tension, this machine practically eliminates all of the manual effort formerly involved in clamp application. The machine is pneumatically operated and only three seconds are required to complete the clamping application cycle. The operator places the hose in the machine and presses the pedal. The whole sequence—clamp tightening, punch locking, and shearing of the clamp tail—occurs automatically. Preliminary studies of machines installed in railroad shops suggest that a single machine may be effectively used to consolidate several former stages when applying the bolt-and-nut clamps. The Punch-Lok clamps are packaged one thousand to a carton and are available for prompt shipment.



A section of the Far-Air dynamic grill approximately 12 ft. long by 2 ft. wide

DYNAMIC GRILL FOR DIESEL LOCOMOTIVE

During heavy snowstorms snow has come through the engine-room air filters of diesel locomotives and has shorted electrical apparatus to such extent as to cause unit failures. This is not surprising, for it cannot be expected that filters 2 in. thick can catch and hold the load of snow accumulating during a 4- to 6-in. snowfall. Such rapid loading on the face of the filter would clog it and then the demand of the engine for air would be so great that snow would actually be pulled through the filters.

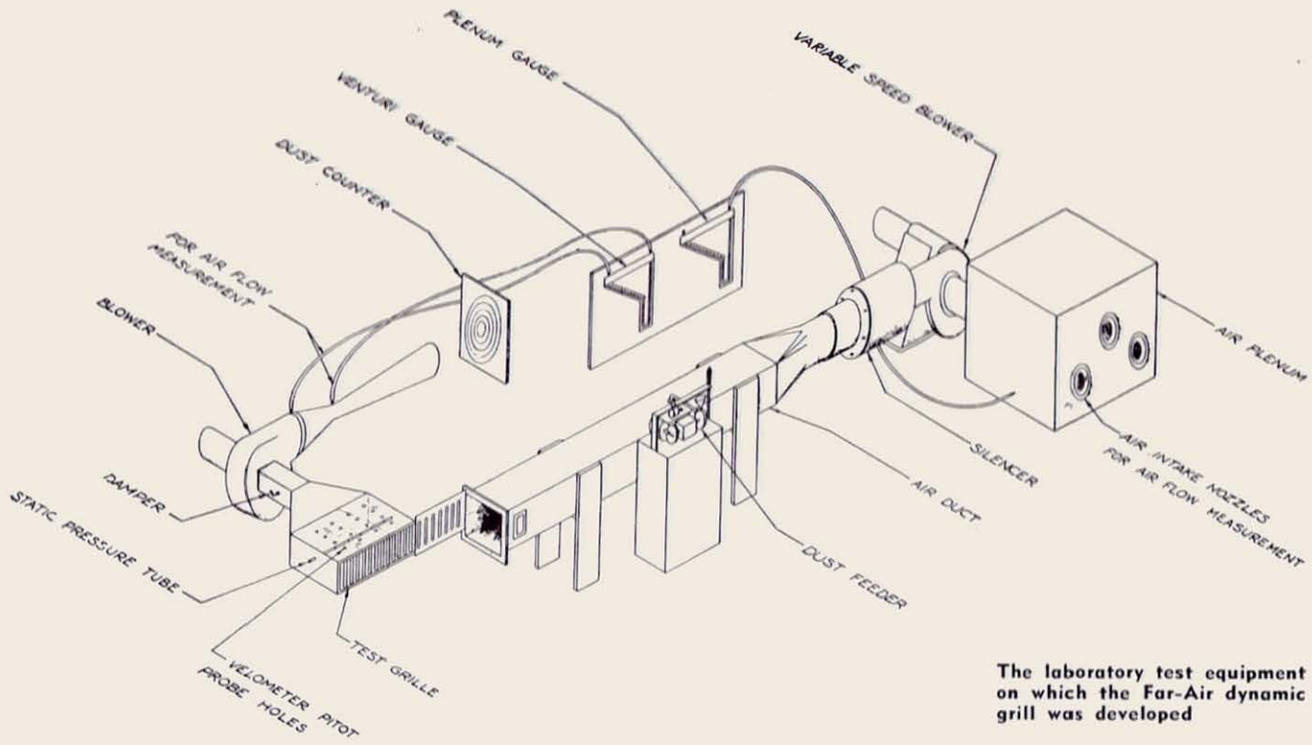
In 1947 a railroad presented to the Farr Company, Los Angeles, Cal., the problem of how to keep snow out of diesel locomotive engine rooms. It was at first felt that some kind of installation could be made inside the filters to seal off and prevent snow from entering the engine room.

However, such an installation, under certain conditions, would shut off the air supply to the engine and the lack of cooling air could also interfere with traction-motor operation.

A laboratory project was next scheduled to develop some kind of baffling device which could be placed on the outside and which would prevent snow from reaching the filters. It was recognized that any such baffling device, if placed on the outside of locomotives, would need to function in both directions of locomotives travel and that restriction to air flow be low enough not to interfere with engine performance, radiator performance, or dynamic grid performance. It was also felt to be highly desirable that such a piece of equipment, which would be mounted on the outside of the locomotive, should have some decorative appeal.

With these requirements in mind, laboratory testing was carried on with the purpose of developing some device which would keep snow out of diesel locomotives. In laboratory procedure, with the grill model fixed and stationary, air was blown through a duct and on out over the intake face of the model grill and air was drawn through the model at right angles to the direction of the air stream across the face of the grill at the velocity required in road operation. The air velocity past the model intake face was variable from zero to approximately 125 m.p.h. The test setup is shown in one of the illustrations.

Nothing closely resembling snow was available for testing material. Because of its light density corn-meal dust was used for this purpose. The —40 +50 mesh-sieve fraction was the size range used for testing. Railroad personnel familiar with the snow nuisance said that, in size and gross appearance, it closely resembled snow when wind-driven at low temperatures. It was felt



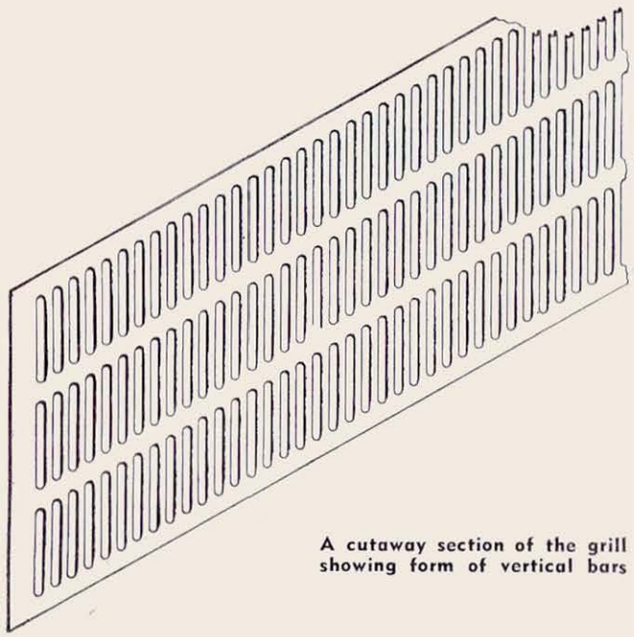
The laboratory test equipment on which the Far-Air dynamic grill was developed

that this kind of snow would be the most difficult to keep from entering the locomotive body. The corn-meal dust was introduced with a dust feeder by means of compressed air and at a uniform rate.

Grill performance was evaluated by comparison with existing locomotive air intake design and also with an open space of the same size having no protective covering. Quantitative particle baffling efficiency was determined by blowing all the air which was drawn through the open space or model grill through a venturi section sized to impinge all the entrained particles on a flat adhesive-coated target with concentric circles for easy counting. Efficiencies were determined by the number of particles found to have been drawn through the different test grills as compared with the number drawn through the open space of the same area.

Some 50 to 75 different models were tested before settling on a single design. The selected design showed that approximately 95 per cent of the corn-meal dust was baffled off, as compared with the open space, when air velocity past the face of the model grill was in excess of 2,000 f.p.m. Incidentally, these test results have been confirmed by another laboratory setup.

A cutaway section of the grill is illustrated. It is installed so that the half-round bars are even with the outside surface of the side walls of the locomotive and the bars are in vertical alinement.



A cutaway section of the grill showing form of vertical bars

The operation of the grill is simple. The air flowing past the grill, because of the speed of the locomotive, is forced to change direction to enter the grill. The net velocity through the grill openings in front of the filters at full air requirements is approximately 1,000 f.p.m. Particles such as snow, which are in the outside air stream which is flowing at right angles to the grill face, are forced to make a 90-deg. bend in order to enter the grill. The mass of these particles is such that, when the train has any speed at all, the particles do not turn as sharply as the air stream with the result that they impinge on the round surfaces of the grill bars and are baffled out again into the outside air stream. This effect is similar to the operation principle of a dynamic separator, hence the name "Dynamic Grille."

The grill has no functional value while the locomotive is standing or running at very low speeds. It was found, however, that the troubles caused by snow were encountered usually when the locomotive was traveling on the road. Likewise, the grill is non-functional, dynamically, when the train is traveling through a side wind.

After the laboratory testing, the next step was to in-

stall a full-scale grill on a locomotive for testing on the road. This was done in 1948 and extensive field testing was begun. The first quantitative road tests made were in the summer. With these tests efficiency was evaluated on the basis of the amount of dirt the grill kept from reaching the air filters. The grill was actually applied to a booster unit in a four-unit 6,000-hp. locomotive.

Quantitative tests were made on this locomotive while in passenger service between Chicago and Los Angeles. Determination of effective grill efficiency was based on comparison of the weight gain of the filter in the booster unit behind the dynamic grill with the weight gain of the filter behind the standard protection for diesel locomotives on the adjoining booster unit. Several tests were made and they indicated that the dynamic grill baffled off somewhere between 50 per cent to 75 per cent of the dirt encountered in operation. The train operated in both directions so that each unit operated half the time in the No. 2 position and half the time in the No. 3 position. The variance in efficiency results was attributed to the probability that variable dust conditions were encountered during the test periods. The heavier the dust concentration and the larger the particle size, the more efficient the grill would be.

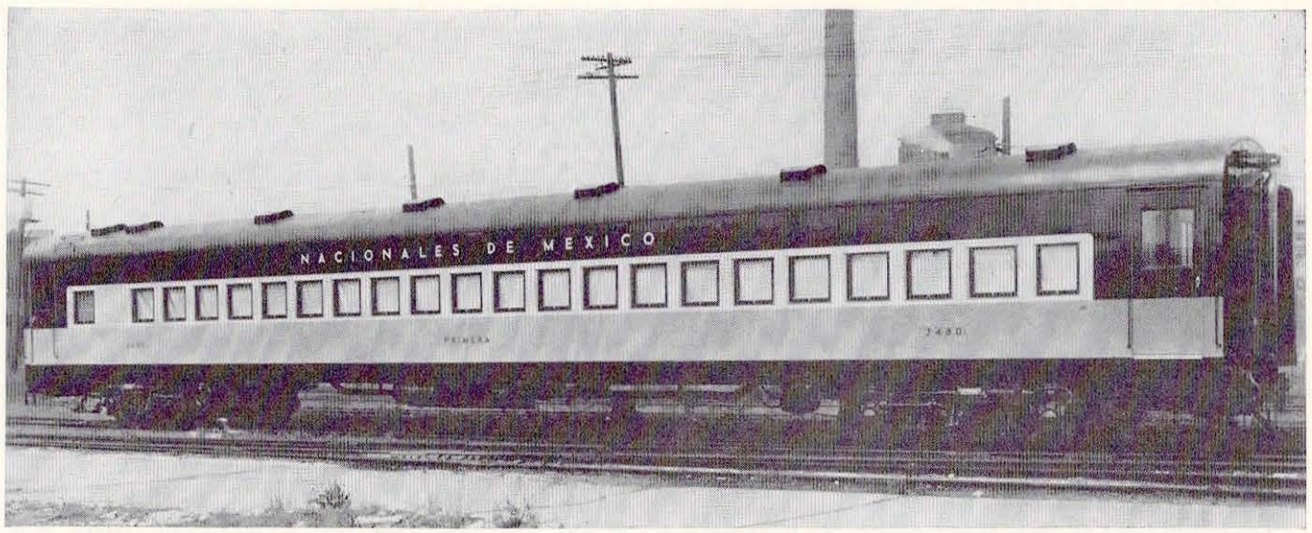
The objective of this project was specifically to prevent snow from getting into diesel locomotives. However, after developing the grill, it was found that it also reduced the amount of dirt which the filters had to handle, which consequently reduced the amount of dirt which actually entered the engine room. This dirt baffling feature of the grill is highly beneficial, especially in sandstorms or localities where high concentrations of dust, which would ordinarily swamp the filters and temporarily lower their efficiency, are encountered. Since the grill is more efficient on large particles due to their greater mass, it does an excellent job of keeping large particles, such as cinders, from even reaching the filters. The grill is not too efficient on very fine particles due to the fact that at velocities comparable to speeds that are normal to locomotive operation, the inertia of the very small particles is not great enough to cause them to be separated from the air stream entering the grill.

When a snowstorm was encountered, the booster unit which had the dynamic grill was in the No. 3 position. The outside temperature was in the range of zero to 10 deg. F. and the train was traveling between 40 and 55 m.ph. In this test it was observed that in the No. 2 unit, considerable snow was on the car-body filters and snow actually entered the locomotive body. In the No. 3 unit, which was equipped with the dynamic grill, there was no snow whatever in the car body, and only a small amount was showing on the car-body filters. In the trailing unit No. 4, snow was packed in the car-body filters and was coming through them in amount large enough to pack in the engine air filters and to cover the floor of the engine room. During this test run, when a filter was removed from the panel, scarcely any snow came through the grill and it was observed that there appeared to be a heavy layer of snow in the air outside staying about 2 to 3 in. away from the face of the grill. This denser layer of snow, no doubt, consisted of snow particles which had been baffled off by impingement on the curved surfaces of the grill.

Special checks were made with the locomotive both stationary and in operation to prove that the grill did not starve the radiators or dynamic grids of air flow. If the grill did starve either one of these important air requirements it would have been impracticable in field operation. Strangely enough, laboratory tests indicated that the higher the train speed, the lower the resistance to air flow through the grill. The resistance to air flow through the grill at required entering velocities is in the order of 0.15 in. of water.

The grill does not assure protection against snow and dirt under certain conditions, but is believed to operate efficiently during enough of the locomotive operative time to make it worth while to apply to diesel locomotives, particularly where ornate grills of no functional value are put on merely for decorative trim, and especially since the dynamic grill can be applied at approximately the same cost to the railroads.

A considerable number of the Far-Air Dynamic Grilles are in operation on diesel locomotives with reports of excellent performance.



NEW COACHES FOR MEXICO.—The Pullman-Standard Car Manufacturing Company has just delivered 11 of these first class coaches to the National Railways of Mexico. Their exterior colors are a bold combination of green, orange and aluminum. Sometime after October 1, the company will begin work on another group of 11 cars of the same design—the fourth order for this type to come from Mexico

1 "All crates must be constructed with double-nailed three-way lock corners," says Mr. Anderson, quoting the Classification on construction of a 5-F wooden furniture crate. Mr. Anderson was a member of the joint shipper-carrier group which drew up the furniture packaging specifications now in use

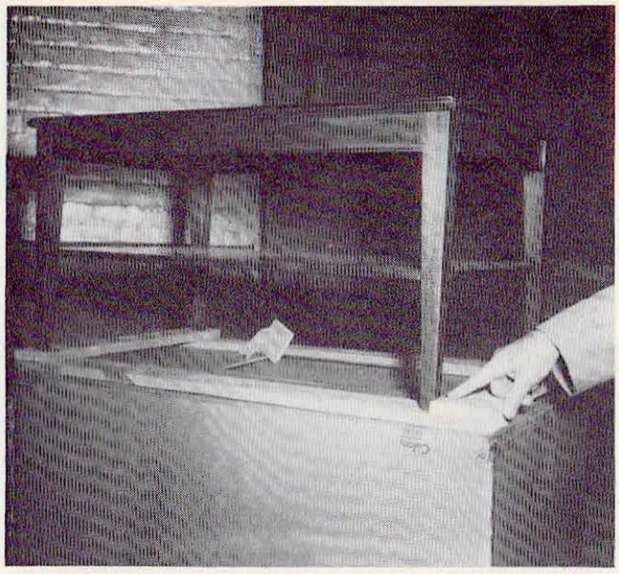
2 Assistant Instructor Craddock has dissected a 4-F package, designed for l.c.l. shipment of overstuffed furniture, to show skid, laminated paper wrapping and padded chair arms and back. Furniture manufacturers in the High Point area loaned furniture, got it back minus packages in some cases

Claim Prevention Men Brush Up On Furniture Packing

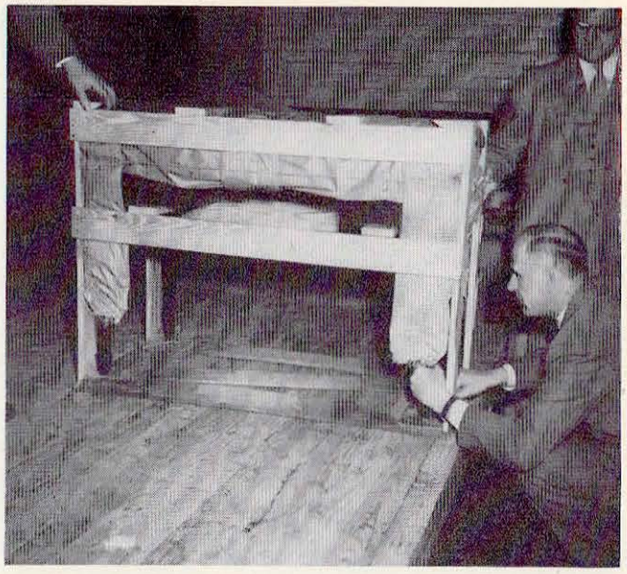
Refresher course conducted for the Southern by Southern Weighing & Inspection Bureau considers many recent changes in Classification — Damage prevention, improved customer relations the objectives

Since the Southern is a leading road in originating furniture traffic, it is vitally interested in seeing that all shipments of this commodity it handles reach their destinations in safety, without loss and damage. Not all furniture damage is the railroad's fault, nor, on the other hand, does the damage always result from a packaging error on the part of the shipper. There is, never-

Chief Instructor J. C. Anderson, standing, called the "class" to order at the beginning of the three-day (and evening) session of the Southern's furniture clinic. Left to right, front row: T. A. Bradford, supervisor of furniture packing, Southern Weighing & Inspection Bureau; J. P. Bishop, supervisor of freight claim prevention, Birmingham; W. L. Eubank, superintendent freight claim prevention; M. Mason Barber, general freight claim agent; G. L. Craddock, supervisor of furniture packing, S.W. & I.B.; A. V. Talbott, agent, Greensboro; and T. J. Culpepper, freight claim adjuster, Greensboro; (second row) P. K. Tait, chief freight claim adjuster, Chattanooga; A. C. Burnham, supervisor freight claim prevention, Chattanooga; B. F. Newport, secretary to superintendent freight claim prevention; G. T. Durden, supervisor freight claim prevention, Atlanta; S. H. Snead, assistant agent, High Point; and O. H. Eargle, supervisor freight claim prevention, Salisbury; (third row) R. K. Tribble, agent, High Point; J. C. LaBorde, freight claim adjuster, Asheville; G. R. Thompson, freight claim adjuster, Greensboro; C. E. Sandridge, supervisor freight claim prevention, Chattanooga; and W. R. Altice, who is also supervisor freight claim prevention, at Chattanooga



3 A real opportunity for damage is pointed out by one of the instructors. At the very least the leg probably would get badly scuffed and unless it got extra careful handling legs could be broken. (Furniture in 1-F packages is usually considered the chief claim producer for this commodity)



4 Mr. Anderson and Assistant Instructor Bradford show details of interior packing for the 3-F package. Finished surfaces of furniture must not come in contact with reinforcing frame, hence excelsior pads are used. Here a four-piece wood skid is used on base on which furniture rests, in lieu of wood tray

5 A package marking (19-F) is pointed out by an instructor at the furniture claim prevention clinic. Just below and to the right of the 19-F marking is the certificate of the box maker, indicating that this box has a bursting test of 200 p.s.i., meeting Classification requirements for this type of package

6 A well-stowed car of furniture being loaded at the Southern's Spencer (N.C.) Transfer. Claim prevention men who attended the school at High Point will spend much time on station platforms teaching truckers and stowmen proper handling of furniture. Southern slide-film also will help educate employees

theless, damage to furniture in transit, and in addition to the expense of settling claims, the railroad realizes that such damage loses it much customer good will. In April of this year, therefore, as a step toward lessening this difficulty, at High Point, N. C., the center of the southern furniture manufacturing district, the Southern held a clinic on furniture packing. The clinic was attended by supervisors from its freight claim prevention department, claim adjusters, the general freight claim agent and several local freight agents from the furniture originating territory.

The instructors at this school were employees of the Southern Weighing & Inspection Bureau, headed by J. C. Anderson, assistant to the manager, with T. A. Bradford and G. L. Craddock, furniture packing supervisors from the bureau, acting as Mr. Anderson's assistants. A major purpose of the sessions was to acquaint the railroad's prevention and claim forces with the latest furniture packaging requirements as set forth in the Consolidated Freight Classification. Misunderstanding of packing requirements by railroad representatives could be harmful to good customer relations, the Southern points out, while failure to insist upon proper packaging, on the other hand, could be extremely costly to the carrier, and eventually, equally damaging to customer relations.

The Southern's management believes that this school has accomplished much toward eliminating the possibilities of the blame for damage being placed upon the wrong party. The railroad now feels that when a freight claim adjuster or a freight claim prevention representative sees, for example, the symbol "1-F" on a package containing furniture he knows how the package should be "built." He can discuss furniture packaging matters intelligently with the railroad's customers; and he can insist, without danger of offending, upon having merchandise packed according to tariff requirements.

Before the reconstruction work was undertaken the Burlington's Ottumwa station looked like this

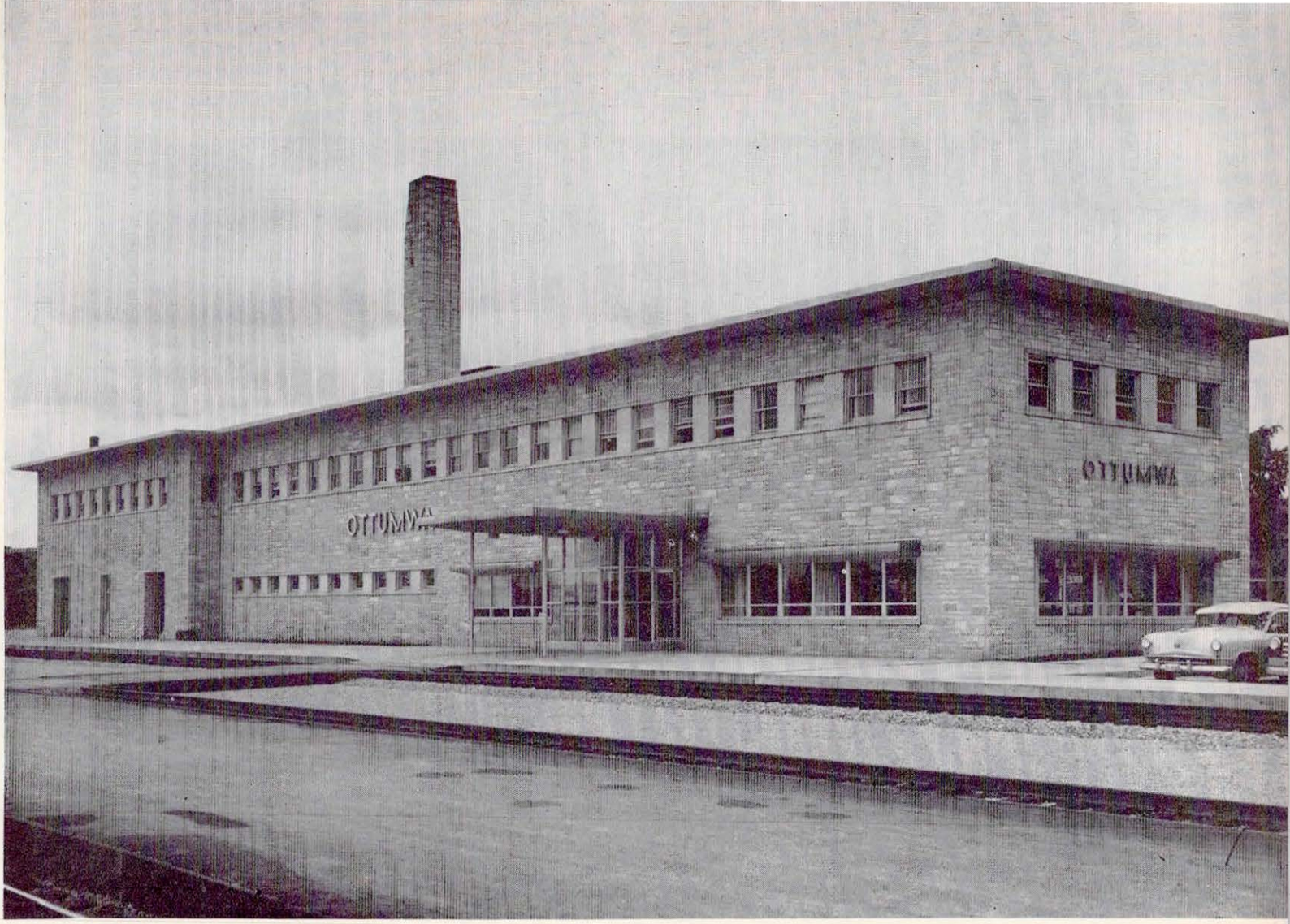
The Burlington's Ottumwa Station...

It Doesn't Look Like the Same Building

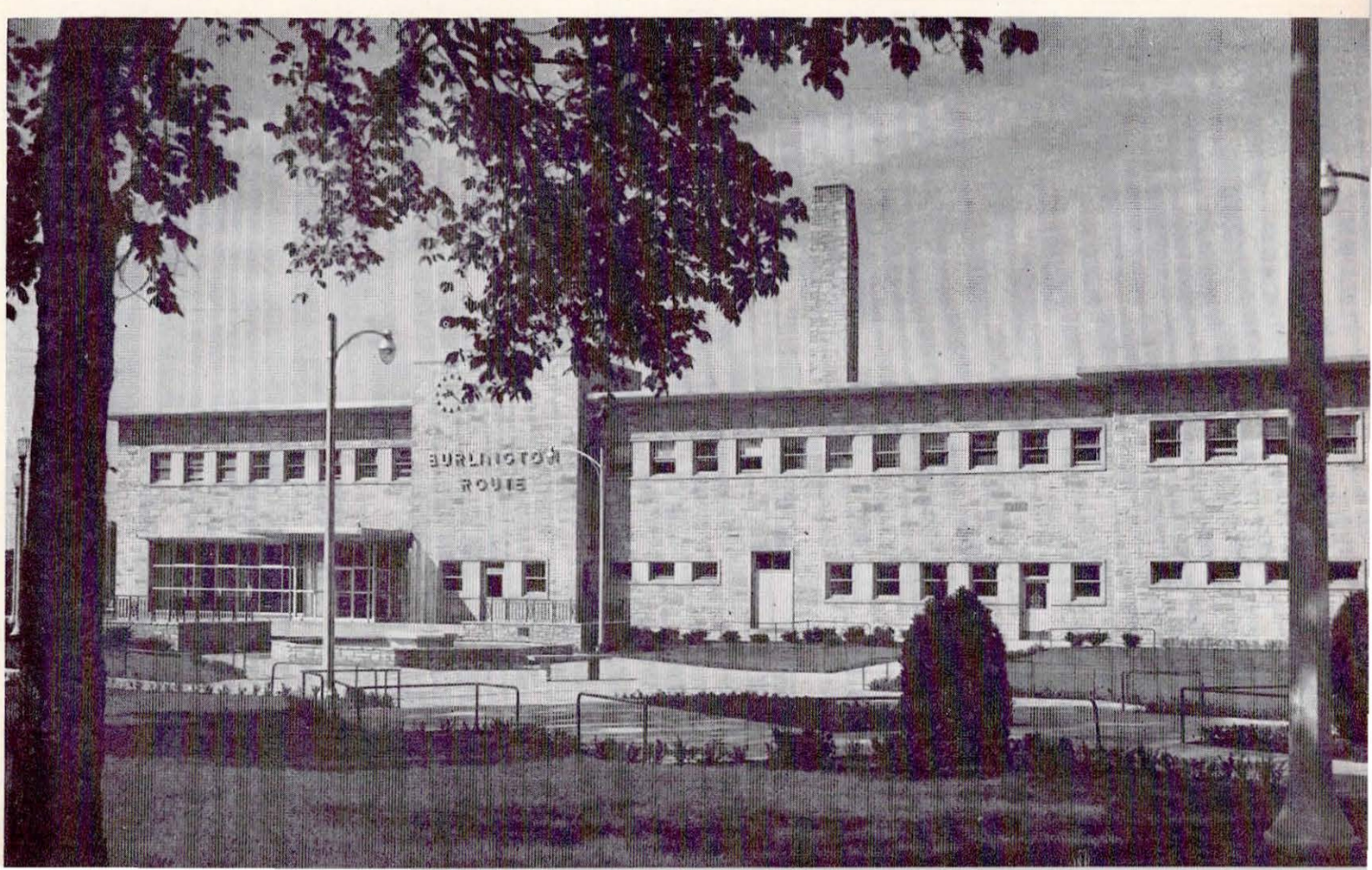
Alterations to combination division office and passenger station have completely changed its appearance, inside and out

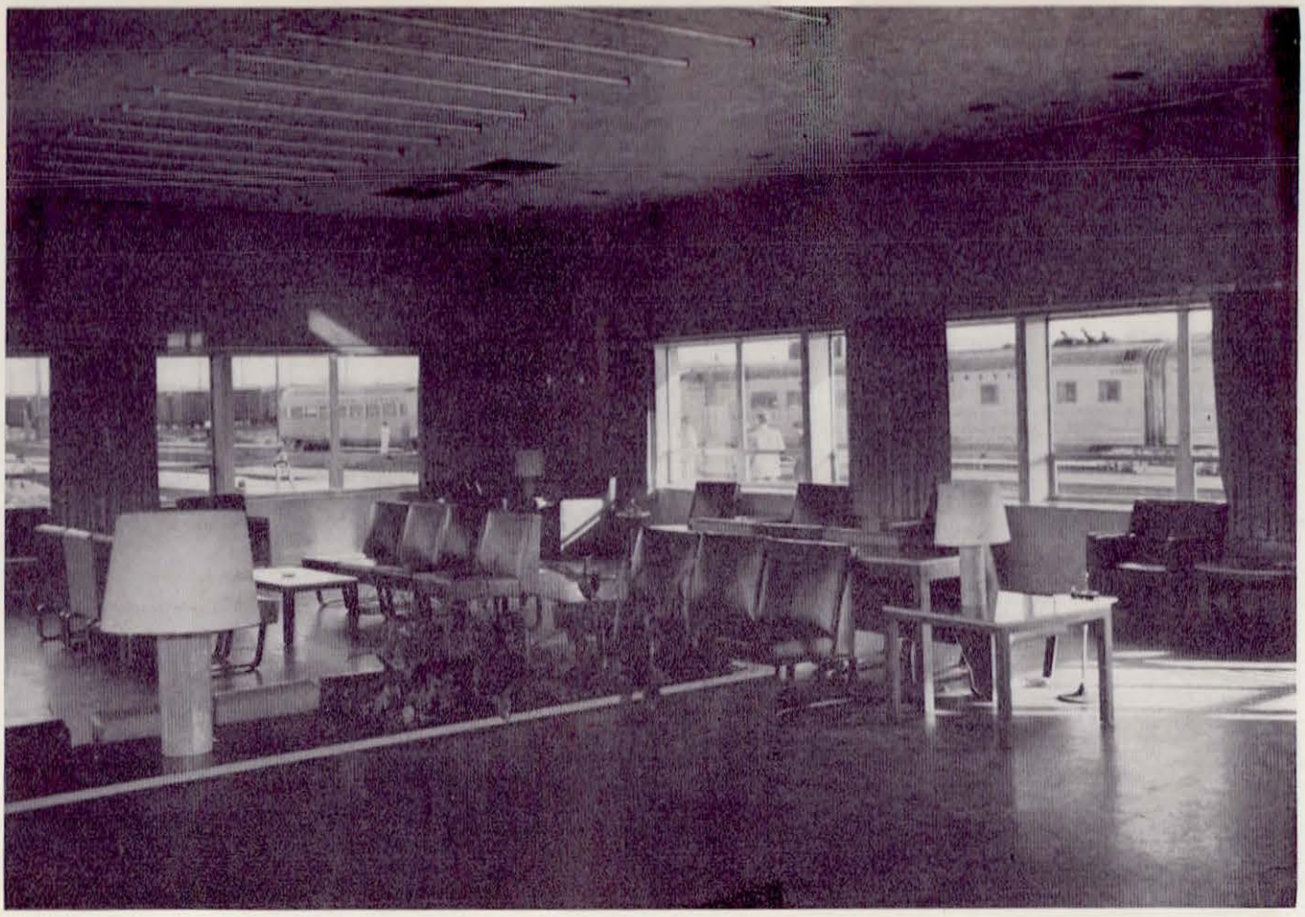
The Chicago, Burlington & Quincy early this summer completed the modernization of its two-story combination office and passenger station at Ottumwa, Iowa, headquarters of the road's Ottumwa division and an important source of passenger and freight traffic. As a result a remarkable transformation has been effected in the appearance of the building. What was formerly an antiquated structure, with the unattractive architectural lines typical of the late nineteenth century when it was constructed, is now considered by Ottumwa residents one of the show places of their city. The municipality also has done its part in beautifying the site by rehabilitating and enlarging a city park (Ballingall park) adjacent to one side of the station, and constructing in the park a paved driveway and walks and a fountain which matches the *decor* of the station.

In the remodeling work the exterior of the building was given the simple functional lines of modern times by removing the existing high many-gabled roof, along with a useless tower which projected above it, and constructing a flat, overhanging roof; by removing the semi-hexagonal bays which formerly adorned both sides of the building; by providing new windows and doors; and finally by covering the outside walls with a 4-in. veneer



Above—A new flat roof, new doors and windows and a dressing of gray and tan Lannon stone have effected a remarkable transformation. Below—The station from the street side. In the foreground is Ballingall park which the city has rehabilitated and enlarged as its part in beautifying the site



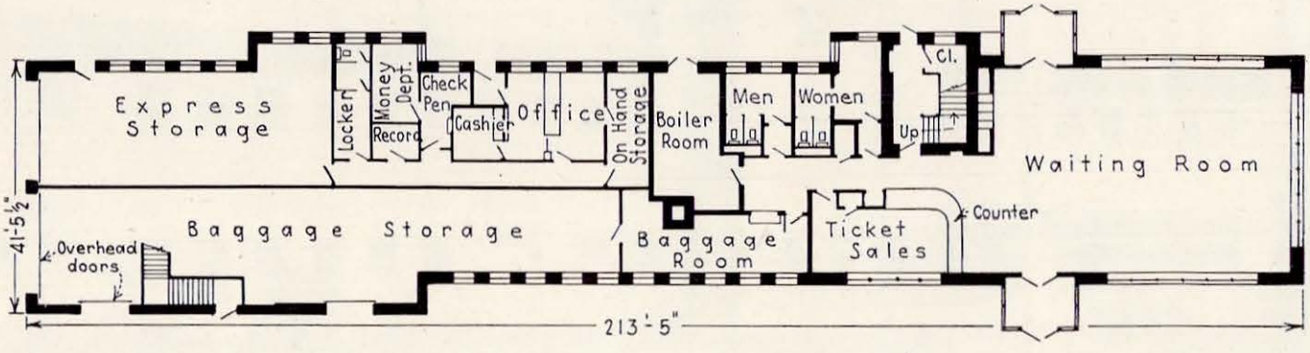


Impressive features of the new waiting room are the Italian marble walls, the walnut woodwork and tables, the brightly colored draperies, and the comfortable chairs and settees

of gray and tan Lannon stone. The interior of the building, the lower floor of which is occupied by the station facilities and the upper by the offices of the division superintendent and his staff, was completely reconstructed. The partitions of both floors were rearranged to effect a better utilization of space and then all areas were refinished, redecorated, and refurnished in the latest style.

The outstanding feature of the interior is the striking appearance of the new waiting room. Here the walls are covered with Italian marble, the floor is finished with terrazzo and the ceiling with acoustical tile. All exposed woodwork is solid walnut. On the side of the waiting room overlooking the park are large picture windows which, along with all other waiting-room windows, are aluminum framed and hung with brightly colored draperies.

The furnishings in the waiting room include movable chairs and settees, all upholstered in dark blue and biege Kalistron, a plastic material, and Formica-topped walnut tables in various sizes. One of these tables has troughs at each end containing decorative plants. Modern toilet rooms and a powder room have been constructed, and the ticket office is now separated from the waiting room by an open counter instead of the former barred window. Fluorescent fixtures in the ceiling and individual lamps



Plan of the first floor of the remodeled station

on the tables provide effective lighting, and four projection-type unit heaters keep the room comfortable in the coldest weather. The waiting room is entered through two glass-enclosed aluminum-framed vestibules, one on the north or park side, and the other on the south or track side.

Original Station Adequate

As originally built in 1888, the station was a red-brick structure founded on piling. It is 41 ft. 6 in. wide by 213 ft. 5 in. long, its long dimension running east to west parallel with the tracks. The gabled roof was covered with slate shingles and the tower was topped with a high steeple which had been removed some time before the recent reconstruction work. The waiting room originally occupied the central 77 ft. of the first floor. East of the waiting room were the ticket office and baggage and express rooms, and west of it were the toilet rooms and a lunch room.

The original station was adequate enough, and structurally sound, but the Burlington had felt for some time that its appearance and facilities were no longer in keeping with the high standards of service offered its patrons on the "Denver Zephyr" and other streamlined passenger trains which stop at Ottumwa. Hence, the reconstruction work was undertaken. Reconstruction instead of replacement was decided upon for reasons of economy.

Other exterior work included construction of a concrete platform all around the building and of a gravel inter-track platform with Sutur-Rock topping and treated wood curbs. The new flat roof is covered with pitch and gravel and is edged all around with a Monel metal facia board. The Lannon-stone veneer is trimmed with limestone.

The station name in gold-faced tymestone letters appears on both ends and on the track side of the station. The words "Burlington Route" in the same type of letters appears on the side facing the park, and above them is a modernistic clock. At night the entire exterior is floodlighted.

Interior Reconstruction

In rearranging the interior the waiting room was moved from its former central location to the east end of the building and reduced to 52 ft. 5 in. in length. Leading from the west end of the waiting room is a corridor flanked on one side by the ticket office and on the other by a stairway to the second floor and the powder room and toilet rooms. The remainder of the first floor is partitioned into baggage and express rooms, a boiler room, and offices. The floors in the latter areas are either of concrete or asphalt tile, and the walls and ceilings are of plaster on metal lath and have a birch trim.

As reconstructed the offices upstairs have maple floors, plaster walls and ceilings, fluorescent lighting fixtures and steam radiators. Steam for heating the entire building is supplied by an automatic Kewanee boiler.

The reconstruction work was carried out by contractors under the general direction of H. R. Clarke, chief engineer of the Burlington, and A. H. Simon, engineer of buildings. The plans for the new facility were prepared by the architectural firm of Holabird, Root & Burgee under the supervision of Mr. Simon. The general contractor was Ragnar-Benson, Inc., Chicago, which company subcontracted portions of the work to local contracting firms of Ottumwa and nearby cities.

LOCAL STATION AGENT— THE MODERN "FIGARO"

[The following poem about the trials and tribulations of a local station agent is one of a group written by DeVon G. Hough, who is agent for the Seaboard at Venice, Fla., a station devoted largely to shipping citrus and watermelons.

In the fall of 1946 the author — feeling the urge to write — addressed a letter to "The professor of American Literature" at the University of Florida, asking for technical advice and instruction in verse-writing. As a result of the friendship with which Prof. Charles E. Mounts responded to this appeal, Mr. Hough was persuaded to publish his poems, which were issued in 1948, under the title "Rhymes of a Railroad Man."

Most of the poems in the little, paper-bound, 66-page volume are not related to railroads, but set forth the reactions of a railroad man to the pleasures and pains of life in general. Section I, however, contains ten poems relating primarily to railroading, including a fanciful piece on the "Flaming Flicker" — a dream about a futuristic train that makes Miami from New York in five hours flat and, in the process, blows over wayside depots all along the line. Copies of "Rhymes of a Railroad Man" may be obtained from Mr. Hough at $1 a copy. — EDITOR]

YOUR BOYS

We're the boys who pound the brass
And in return get pounded;
We just report on trains which pass
And see the wires not grounded.

We're not supposed to be too bright
And know so very much,
Just keep the rates and tariffs right
Express and mail and such.

Be diplomats when patrons rave,
Be patient when they swear,
And when they call us "dirty knave"
Pretend we didn't hear.

Know if they change in Buffalo
And how to file a claim,
Say we're just fine when we are low
And hope they are the same.

Know PPO's, corrections too
And just what offsets what,
The receipe for Brunswick stew,
Why the temperature is hot.

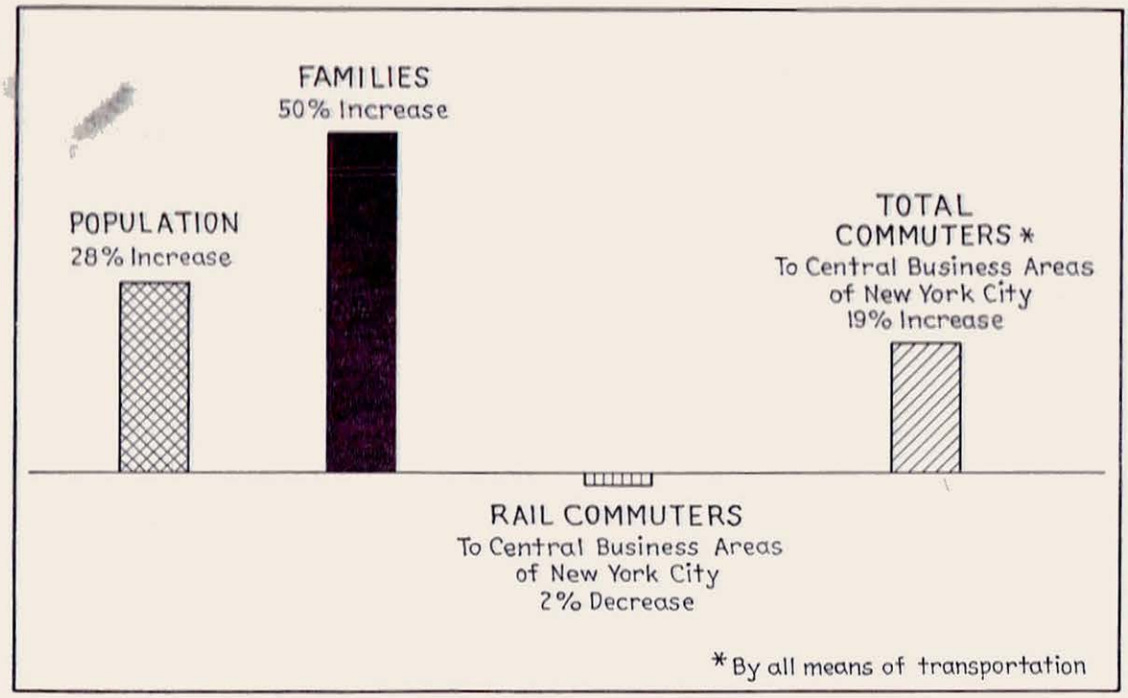
The commission's latest ruling,
And how all rates are made,
Know when the Boss is fooling,
Who heads the Ladies' Aid.

Know where the fish are biting,
What's good for baby's colds,
Keep an office so inviting,
How much a bunker holds,

The Florida law on citrus,
How many cars next year,
The damage by the cold to us,
Just when the market's fair.

Embargo this, embargo that,
It's subject to delay.
Your requisition seems too fat
Why decrease is shown in May?

The Chief is hot and raising hell,
For you delayed that train;
The Superintendent says "———" Oh well,
We aren't supposed to have a brain.



Railroad Progress and Regional Transportation

. . . in New York

As briefly reported in* Railway Age *July 16, page 37, the Regional Plan Association, Inc.— a non-profit, research and planning agency supported by voluntary membership to promote coordinated development of the New Jersey-New York-Connecticut Metropolitan Region— has recently completed a detailed study of that area's transportation problem, with particular emphasis on trends of commuter transportation. The article which follows summarizes the conclusions, findings and recommendations reached by the association as a result of its study. All material in this article, including the chart, is copyrighted by the Regional Plan Association; is reproduced here by special permission; and may not be further reproduced in any form without approval of the association. Copies of the complete report may be obtained from the association at 205 East 42nd street, New York 17, at $2 per copy.

This study presents the results of investigations by the Regional Plan Association to determine the amount, extent and trends of commuting, particularly by railroad, to central New York City.

The findings, summarized in an accompanying box, show that today there are only about 350,000 commuters* (not the 500,000 to 1,500,000 as widely varying estimates have indicated), that commuting by railroad is less than it was 20 years ago, and that commuting by all means of transportation is only 19 per cent higher than in 1930 (although suburban families have increased 50 per cent).

An analysis of the findings leads to three principal conclusions:

1. The substantial growth of business and industry in many of what have heretofore been referred to as "bedroom" communities is gradually decreasing the relative importance of the commuter as the economic mainstay of the suburban area.

2. There is little reason to expect an overall increase in railroad commuting to the central business areas of New York City in the foreseeable future and commuting by all means may increase little.

3. This does not mean, however, that the commuter transportation problem is solved. If use of railroads for commuting is permitted to decline in favor of motor vehicle commuting, traffic congestion in the region's central business areas and costs of relieving such congestion will increase out of all proportion to the number of persons transported.

The fact that there are fewer railroad commuters to

*Commuters in this study include persons who travel to work regularly between suburban points outside New York City limits and central New York City (midtown and downtown Manhattan and downtown Brooklyn).

Manhattan in 1950 than there were in 1930—while commutation by motor vehicle has greatly increased—calls for a searching inquiry into the place of the railroad in the future development of the region's transportation system.

Lag in Railroad Development

Twenty years ago a balanced program for development of adequate rail and vehicular facilities serving the region was outlined in the Regional Plan of 1929.

Following the pattern indicated in the Regional Plan tremendous progress has been made with the vehicular program. This is particularly true with respect to facilities which lead into the Borough of Manhattan.

There has, however, been no comparable progress in the railroad field. The result was to have been expected. It is dramatically revealed by the association's studies of present-day commuter trends, which show a marked decline in the railroad's share of the commuter load.

The first task confronting the Port of New York Authority was to improve the Port District's railroad system in accordance with the Comprehensive Plan adopted by the states of New York and New Jersey and approved by Congress in 1922.

The Port Authority made substantial efforts in this field, including joint studies with the railroads of the interstate commuter problem. Over the years, however, it has been unable to bring the railroads into agreement and little progress has been made, primarily because the improvements could not be shown to be self-sustaining. There has been, of course, no public subsidy for railway improvement in the region. The public subsidy for the region's highway, waterway, and airport systems has been tremendous.

Great Increase in Vehicular Facilities

The Port Authority later directed its major efforts to the construction of facilities which bring motor vehicles into Manhattan. The result is its magnificent system of bridges and tunnels, bus and truck terminals. Other public agencies, including the City of New York, the state highway departments of New Jersey, New York and Connecticut and the authorities now consolidated in the Triborough Bridge and Tunnel Authority, have developed other parts of the Manhattan-connected network of expressways, parkways, bridges and tunnels.

The net result is that today there is a far greater proportion of the total traffic between Manhattan and its suburbs carried by motor vehicle than there was 20 or 30 years ago.

Manhattan Traffic Congestion

One of the effects of the failure to make a comparable investment in railroad improvements has been enormously to increase the number of vehicles which cause congestion on Manhattan's streets and use these streets as mass parking fields.

For example, the automobiles required to transport the equivalent of one trainload of commuters use about four acres of parking space in Manhattan, eight times the area of Grand Central main concourse.

Every trainload of commuters shifting to automobiles requires automobile parking space about equal to the effective parking capacity of one side of Fifth avenue from Washington square to Sixty-eighth street (three miles).

HIGHLIGHTS

The peak in suburban rail commuting to central New York City occurred in 1929-30.

The great increase in suburban population from 1930-50 did not produce a corresponding increase in commuting.

Suburban rail commuters were fewer in 1950 than in 1930.

The total number of rail commuter trips for the year 1950 was 38 per cent less than for the year 1930.

Increased bus and auto commuters from New Jersey only slightly more than offset the decline in rail and Hudson & Manhattan Tube commuters.

There are 20 per cent less commuters per thousand suburban families today than there were 20 years ago.

Suburban employment in manufacturing and wholesale trade is proportionately more important than in 1930.

The average length of a rail commuter's trip is about the same as it was 15 or 20 years ago.

The average rail commuter travels more than 11,000 miles per year.

It is also to be noted that there has been a steady and substantial increase of employment in all suburban counties of the region. A better balance in the regional transportation system should be established to accommodate the rapidly increasing traffic between different parts of the suburban area, by-passing Manhattan altogether. This traffic was anticipated in the Regional Plan of 1929. It will continue to increase as business and industry expand in the metropolitan area's outlying counties.

The Paramount Public Need

These facts lead the Regional Plan Association to one inescapable conclusion. An objective study is needed to appraise the present policy of allowing the railroad systems to remain static, while concentrating investment on vehicular traffic arteries leading into Manhattan.

The issue here is the paramount public need for a well balanced regional transportation system of highway, parkway *and* railroad development connecting each part of the region with every other part in accordance with present and future traffic needs.

Recommendation

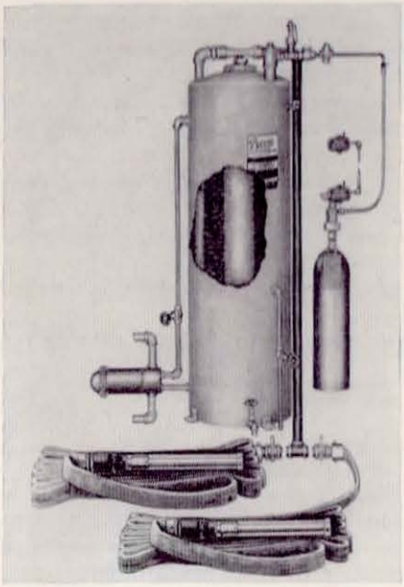
Primarily this is the responsibility of the Port Authority and is its duty under existing statutes. The Association recommends that the authority renew its studies of the regional transportation system in its entirety with a fresh approach.

If, in view of its present important and notably useful commitments in vehicular facilities, the Port Authority is unwilling or unable to assume this task with a view to achieving an equally important improvement in the railroad field, it is then recommended that a special interstate commission be established for this sole purpose.

From such a study should come recommendations as to the balanced development of both rail and motor transportation to meet the needs of the region.

Full cooperation of all operating agencies concerned, including the state highway departments, the Port of New York Authority, the railroads, and the New York Board of Transportation should be required by action of the three states concerned. The association urges the governors of New Jersey, Connecticut and New York promptly to take such action as may be necessary to advance such studies and joint program.

New and Improved Products of the Manufacturers



A Pyrene air-foam fire extinguishing system designed for installation on a diesel locomotive

Self-Contained Air-Foam System

The Pyrene Manufacturing Company, Newark, N. J., has announced a compact, completely independent air-foam fire extinguishing system for use on diesel locomotives, at remote flammable-liquid pumping stations and storage tanks, or other locations where water supplies or water pressures are inadequate. The accompanying picture shows a typical system designed for installation on a diesel locomotive.

This system is put into operation by pulling a handle in either of two manual-control pull boxes, one on each side of the locomotive. When this is done gas is discharged from a carbon-dioxide cylinder into a water tank in which it builds up pressure and thus causes the water to discharge. The discharging water passes through a foam-compound proportioner which automatically draws from a tank within the water tank the right amount of foam compound and puts it into the water. The mixture of water and foam compound then flows to the playpipe on the same side of the locomotive as the pull box that has been operated. In the playpipe the mixture is converted into air foam or mechanical foam which is used to smother the fire.

Containing 100 gallons of water and 6 gallons of foam compound, the unit is said to produce as much as 1,750 gallons of foam at a rate of 350 g.p.m. The unit occupies a space 24½ inches square by 70 inches high, and, fully charged, weighs about 1,600 lb. In case of a derailment the system will continue to operate even if lying in a horizontal position. If protection against freezing is needed, a heat exchanger may be applied to the system.

Direct-Positive Photo Paper

The Photo Records department of Remington Rand, Inc., New York 10, has announced the availability of a photographic contact paper that produces a positive photocopy in one step by transmitted or reflected light. Known as D-151 Direct Positive Portagraph Paper, its main use will be in making readable positives from one-sided translucent or transparent originals. It will work equally well, the manufacturer states, by the reflex and reverse copying methods, and is adaptable to the Remington Rand Portagraph or any other standard photocopying equipment. It is also color-sensitive.

In contact printing from a letter, for example, the letter is placed face down on the copy glass and then the direct positive paper is placed over it, emulsion side down. Prevailing methods of processing and operation may be used.

Battery Charger For Shelf Mounting

A motor-generator type battery charger, designed to permit mounting on balconies or shelves to save floor space, has been announced by General Electric's Small and Medium Motor divisions.

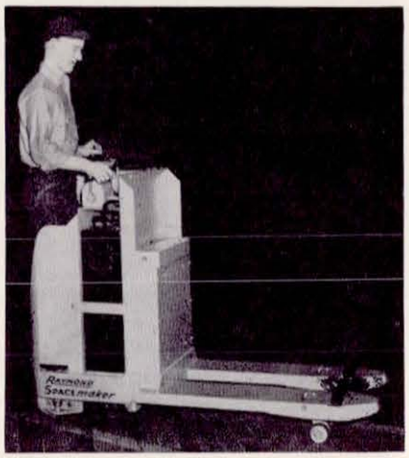
For charging batteries in driver-lead and small driver-ride industrial lift trucks, the new unit accommodates lead-acid batteries of 6 to 19 cells and nickel-iron-alkaline batteries of 10 to 30 cells. It is about the size of a tank type vacuum cleaner with a control box mounted on its side, weighs 190 lbs, and can be installed on a shelf measuring 6¾ inches by 8¼ inches.

To place a battery on charge, it is only necessary to plug it in, and set the timer; automatic controls do the rest. Voltage (based on the number of cells) and current (based on ampere-hour battery ratings) are adjustable.

Protection from external damage to the charger is provided by completely enclosed construction. Permanent bearing alinement, established by factory assembly, cannot be disturbed during mounting.

Incorporated in the design of the new unit are a number of features recommended by the Industrial Truck Association. Included are automatic disconnection of charger from power line and opening of charging circuit in case of power interruption, automatic restart of charger upon resumption of power supply following an interruption, automatic control of charging rate under the modified constant voltage charging system, and automatic cut-off of battery and shutdown of charger when the battery is fully charged.

The single-circuit equipment operates on 3-phase, 60-cycle, a.c. power, and has generator-overload and motor-overload protection to guard against excessive currents.



Low-Lift Pallet Truck

A rider-type, low-lift electric truck that handles both single- and double-face pallets has just been introduced by the Lyon-Raymond Corporation, Greene, N.Y. One of the manufacturer's "Spacemaker" line of trucks, this unit is said to be able to make speeds of 5 m.p.h. under a full 4,000 lb. load, and 6 m.p.h. when empty. The manufacturer further states that this unit can right-angle pick up or spot loads from aisles 6 ft. wide.

This truck is being offered with a carrying frame 30-60 in. long and 24, 27 or 30 in. wide. Forks are 9½ in. wide and may be raised from 3¼ in. (lowered height) to 7¼ in. (elevated height). This new model draws its power from a 12-volt battery, either a 250-440 ampere hour 6-cell lead battery or a 300 ampere hour 10-cell Edison battery.

GENERAL NEWS

(Continued from page 74)

Money for I. C. C. And Other Agencies

Appropriations totaling $10,474,535 for the Interstate Commerce Commission and $1,092,243 for the National Mediation Board and National Railroad Adjustment Board are provided for the fiscal year ending June 30, 1952, in recently enacted appropriation acts which have been signed by President Truman. The fiscal year for which the acts supply funds began last July 1, but resolutions adopted by Congress have authorized the involved agencies to continue spending since that date.

The act carrying funds for the I.C.C. is Public Law 137, while funds for the Mediation and Adjustment boards are provided by Public Law 134. The latter also provides fiscal 1952 funds for the Railroad Retirement Board, but it puts that appropriation on an indefinite basis, making it "an amount equal to amounts covered into the Treasury (minus refunds) during the current fiscal year" as a result of payroll-tax collections under the Railroad Retirement Tax Act.

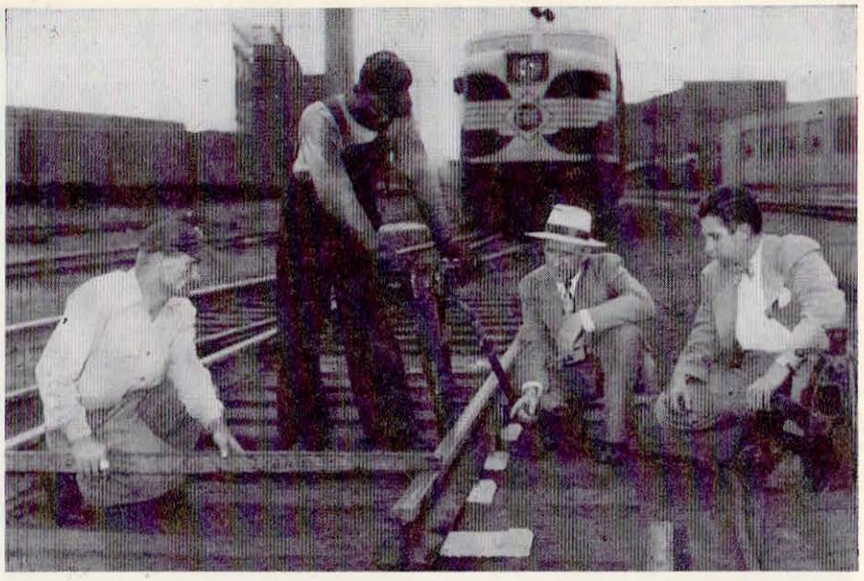
This marks a change from the previous plan of appropriating to the Railroad Retirement Fund, at the beginning of each fiscal year, an amount equal to the estimated payroll-tax collections of that year. The change, which was recommended by President Truman in his budget message of last January, will deprive the fund of some interest income.

Under the previous plan, the amount appropriated at the beginning of a fiscal year was immediately invested in government securities bearing interest at the rate of 3 per cent. Under the new set-up, purchases of such securities will await collection of the payroll taxes; and the government will no longer be in the position of paying interest on money which it advances.

Funds for expenses incurred by the Retirement Board in its administration of the Retirement Act are taken from the payroll-tax collections. In that connection, the appropriation act stipulated that no more than $4,845,808 shall be spent for such administrative purposes during fiscal 1952. The amount thus earmarked in the appropriation act for fiscal 1951 was $5,446,000.

The $10,474,535 appropriated for the I.C.C. includes $8,784,935 for "general expenses," $983,000 for "railroad safety," and $706,600 for locomotive inspection. President Truman's budget message recommended, for the commission, fiscal 1952 appropriations totaling $11,542,000, including $9,823,000 for "general expenses," $1,000,000 for "railroad safety," and $719,000 for locomotive inspection.

The $1,092,243 appropriated for the Mediation and Adjustment boards includes $378,494 and $575,749, respectively, for "salaries and expenses" of those boards. The remaining $138,000 is for arbitration and emergency boards. The act's provisions with respect to the Adjustment Board will permit expenditure of $250,000 out of that board's "salaries and expenses" appropriation for the employment of referees to decide deadlocked cases. The President's budget message recommended appropriations totaling $1,198,000 for these two boards.



SERVICE TEST OF PLASTIC TIE PLATES.—An investigation to determine the behavior of newly developed plastic tie plates under actual service conditions has been launched by the Erie in collaboration with the Dynakon Corporation, of Cleveland, a firm of plastics fabricators and the manufacturer of the plastic plates. As the basis of this investigation a test installation has been established in a stretch of Erie track at Cleveland. Produced by a cross lamination of glass fiber and plastic binder, the Dynakon plates are claimed by the manufacturer to have the advantages of resilience, high resistance to corrosion, and light weight. Shown above supervising the test installation are J. S. Parsons (second from right), assistant chief engineer maintenance of way of the Erie, and Harry Raech, Jr. (right), Dynakon president

New Complications Enter Seatrain-Savannah Case

The pending application of Seatrain Lines for authority to purchase Ocean Steamship Company and thereby acquire operating rights between Savannah, Ga., and New York, has taken on new complications.

Seatrain and Ocean Steamship last week filed a petition with the Interstate Commerce Commission, charging the commission with having granted duplicate rights between Savannah and New York to another coastwise carrier, C. G. Willis.

According to this petition, the commission's August 2 order, permitting Willis to purchase the water-carrier rights of Pocahontas, another carrier, had the effect of giving Willis rights over "precisely the same route" as that of Ocean Steamship.

Willis previously held tug and barge rights covering operations between Trenton, N. J., and Jacksonville, Fla. The commission's order gave him authority to extend his operations to include New York, and authorized him to use self-propelled vessels in this service.

Ocean Steamship and Seatrain now want to intervene in that case. They say they wish to point out "certain inconsistencies" between the decision in the Willis case and the recent denial of temporary authority to Seatrain. They also say they would be "injured" if the Willis order becomes effective.

Meanwhile, the commission had already moved to postpone the effective date of the Willis order. Another protestant, the S. C. Loveland Company, asked for reconsideration of the order by the full commission, and the postponement was granted while the commission studies this possibility.

As the Ocean company and Seatrain became thus involved in the Willis case, Seatrain continued active in its efforts to obtain I.C.C. authority to purchase the rights held by Ocean. Ocean Steamship is owned by the Central of Georgia.

Among the latest developments in the acquisition case are these: Seatrain asked the commission for an explanation of the recent order denying Seatrain the authority to acquire Ocean's rights on a "temporary" basis. Commission Secretary W. P. Bartel answered this request by saying that "it is not the policy of this commission

THIS NEW PASSENGER OFFICE FOR THE SANTA FE at 815 Houston street, Fort Worth, Tex., combines simple, functional design with a touch of Navajo styling. The serpentine counter and the drop light panel above it add a note of informality contrasting with the straight lines of the brick wall and the glass front. Plant boxes along the front window replace the usual store-window type display cases, placing emphasis instead on the office

to explain or amplify its orders by correspondence." Seatrain was told to make "formal application" if it wished modification or clarification of the denial order.

This denial by the full commission was made after Seatrain sought review of an earlier order, by the commission's Division 4, which also denied the temporary authority. Seatrain's petition seeking this temporary authority was filed with the commission last June.

Another move by Seatrain was a request that Commissioner Mahaffie disqualify himself from participating in further decisions in the case, on grounds that he is "biased and prejudiced" against the carrier.

Graham M. Brush, president of Seatrain, wired the commissioner that the latter's record since the first Seatrain case in 1933 was one wherein the commissioner always opposed the Seatrain-type operation. Mr. Brush charged Commissioner Mahaffie with having "misled" and "deceived" other commissioners. He cited statements by Commissioners Splawn and Lee to support his contention.

Commissioner Mahaffie answered this telegram by letter, and said copies of the wire had been furnished to all members of the commission. He did not indicate that he was disqualifying himself, but subsequent orders in the case have been handled by Commissioners Splawn or Lee.

When the commission would not "clarify" its order denying temporary authority, counsel for Seatrain and Ocean asked for postponement of the next hearing in the case, scheduled for September 11. The commission cancelled the hearing. The attorneys said the postponement was requested to give the parties time to study the "changed situation."

Eastern and Southern railroads opposing Seatrain's proposed New York-Savannah service have filed tariff supplements with the I.C.C., seeking to cancel rates, routes, rules and regulations with Ocean Steamship Company. These supplements cover shipments between Official, Southern and Southwestern territories.

Upon protest of Seatrain, Port of New York Authority, and others, the commission has suspended these tariff supplements until February 26, 1952. This portion of the case is scheduled for hearing in Washington, D. C., on October 10, before I.C.C. Examiner Pyne.

The most recent intervenor in the proceeding is the Department of Commerce. In asking authority to intervene, the department identified itself as the agency "entrusted with the function of developing and coordinating executive policy in transportation, including the planning and development of route patterns." It said the Seatrain application "brings or may bring into play important questions of overall transportation policy, e.g., the development of rail and water operation by the most efficient means. . ."

Hicks Becomes D.T.A.'s Highway Transport Chief

Edward D. Hicks, Jr., has been appointed director of the Defense Transport Administration's Street and Highway Division. He succeeds Henry E. English, who resigned, effective September 1.

Mr. Hicks had been deputy director of the division. Mr. English, a former president of American Trucking Associations, is chairman of the Board of Red Ball Motor Freight, Dallas, Tex.

New C. M. P. Applications Will Be Due October 1

The National Production Authority is distributing application forms for first-quarter 1952 allotments of steel, copper and aluminum under the Controlled Materials Plan. The applications must be filed with N.P.A. by October 1.

Manufacturers of all products listed in the third edition of the "Official CMP Class B Product List," dated September 1, must file applications, N.P.A. announced. Freight cars and locomotives are included in this list.

Oct. 15 Is Last Filing Day On Warehouse Construction

Applications for permission to construct warehouse and storage facilities during the first quarter of 1952, as well as applications for the necessary controlled materials, must be filed with the Defense Transport Administration by October 15.

H. K. Osgood, director of D.T.A.'s Warehousing and Storage Division, announced the deadline last week. He said it was necessary that D.T.A. consider all applications at the same time, in order to provide equitable distribution of the limited supply of materials available.

For subsequent quarters, applications for permission and materials must be filed by the 15th day of the first month of the quarter preceding the one for which delivery of controlled materials is requested.

"Cleaner Air Week" to Be Celebrated in October

"Cleaner Air Week" will be observed in the United States and Canada October 21-27. This announcement was made by Charles N. Howison, national chairman of the Cleaner Air Week Committee of the Air Pollution & Smoke Prevention Association of America, and secretary of the Smoke Abatement League of Hamilton County, Ohio, in conjunction with the U. S. Department of Commerce.

The observance was originally inaugurated to focus attention upon the need for control of air pollution from all sources, and to serve as a starting point for year-round smoke abatement and air pollution control activity by public officials, schools, industry, railroads, apartment houses, homes and civic institutions. The week was formerly known as National Smoke Abatement Week, but its name was changed, Mr. Howison stated, to cover

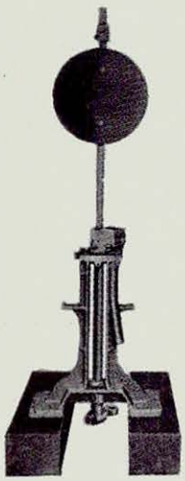
ANOTHER GREAT RAILROAD

THE MAIN LINE OF MID-AMERICA

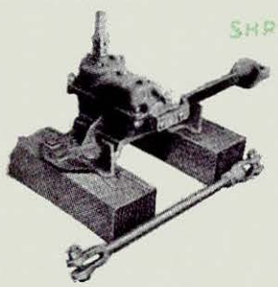
Has benefited by ever constant research which Ramapo Ajax has devoted to development of the best in track work toward lowering maintenance costs and promoting longer service life.

Illinois Central executives responsible for the safety and economy of their track problems can depend upon Ramapo to supply equipment to meet their most exacting maintenance demands.

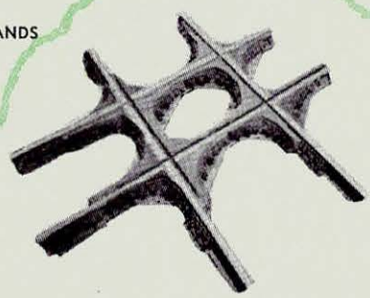
Through the combined facilities of the American Brake Shoe Company, it is our aim to continuously combat the forces of wear and impact in order to provide greater safety under present day speeds and car loadings.



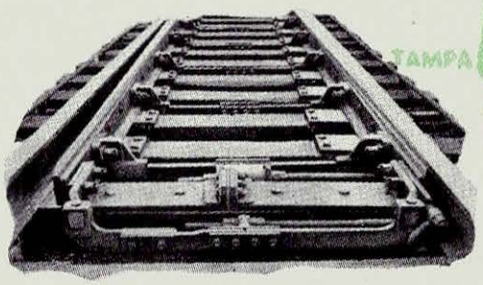
STYLE 112-D
RACOR SWITCH STANDS
For Main Line Use



STYLE 22
RACOR AUTOMATIC SWITCH STANDS
For Yard Use



RACOR MANGANESE STEEL CROSSINGS



RACOR VERTICAL SWITCH RODS

AMERICAN Brake Shoe COMPANY

RAMAPO AJAX DIVISION
109 North Wabash Avenue, Chicago 2, Ill.

RACOR

Car Surpluses and Shortages

Average daily freight car surpluses and shortages for the week ended September 8 were announced by the Association of American Railroads on September 13 as follows:

	Surplus	Shortage
Plain Box	75	3,533
Auto Box	19	93
Total Box	94	3,626
Gondola	7	4,621
Hopper	0	2,989
Covered Hopper	0	112
Stock	259	667
Flat	19	631
Refrigerator	3,331	0
Other	250	0
	3,960	12,646

the wider scope of activity of the association.

Governors of most states, and mayors of hundreds of cities, will proclaim the week officially in their jurisdictions, as they did last year. City air polution control officials will cooperate with local newspapers and radio and television stations by outlining their activities during the year, so the communities will know what is being done to minimize air pollution. Chambers of commerce and civic organizations are being alerted to support the project. In addition, a number of radio addresses are being prepared on which local programs can be patterned. Smoke abatement techniques will also be developed for television shows. Mr. Howison's committee will urge distribution of literature on air pollution control equipment by responsible manufacturers, so the public may see for itself how much engineering activity has been going on in the field of air pollution control.

Principal supporters of "Cleaner Air Week" include the National Coal Association, Appalachian Coals, Inc., the Pocahontas Operators Association, the Smoke Abatement League of Hamilton County, Ohio, and the Air Pollution & Smoke Prevention Association of America.

July Employment

Railroad employment decreased 0.04 percent — from 1,295,045 to 1,294,525 — from mid-June to mid-July, but the mid-July total was 3.73 per cent above that of July 1950, according to the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission.

The index of employment, based on the 1935-1939 average as 100, was 124.2 for July, compared with 125.2 for the previous month and 119.7 for July 1950.

July employment was below that of the previous month in two of the seven groups. The two groups that declined were the maintenance of equipment and stores group, down 0.94 per cent, and the transportation (train and engine service) group, down 0.35 per cent. Meanwhile, increases in the remaining five groups ranged from 0.71 per cent for professional, clerical and general employees, to 0.28 per cent for executives, officials, and staff assistants.

As compared with July 1950, employment increased in all groups. The increases ranged from 6.26 per cent for the maintenance of way and structures group, to 0.86 per cent for transportation (other than train, engine and yard) employees.

July Accident Statistics

The Interstate Commerce Commission has made public its Bureau of Transport Economics and Statistics' preliminary summary of "steam railway" accidents for July and this year's first seven months. The compilation, which is subject to revision, follows:

Item	Month of July 1951	Month of July 1950	7 months ended with July 1951	7 months ended with July 1950
Number of train accidents*	813	834	6,265	5,395
Number of accidents resulting in casualties	35	39	308	251
Number of casualties in train, train-service and nontrain accidents:				
Trespassers:				
Killed	148	136	643	646
Injured	112	122	571	653
Passengers on trains:				
(a) In train accidents*				
Killed	..	9	92	39
Injured	83	241	978	761
(b) In train-service accidents				
Killed	7	1	13	12
Injured	192	173	1,019	1,118
Travelers not on trains:				
Killed	1	..	3	3
Injured	46	47	416	441
Employees on duty:				
Killed	28	37	210	178
Injured	1,910	1,716	13,288	11,299
All other nontrespassers:**				
Killed	113	96	933	871
Injured	351	397	3,350	3,191
Total—All classes of persons:				
Killed	297	279	1,894	1,749
Injured	2,694	2,696	19,622	17,463

*Train accidents (mostly collisions and derailments) are distinguished from train-service accidents by the fact that the former caused damage of $275 or more to railway property in 1950. Beginning January 1, 1951, this minimum was raised to $300. Only a minor part of the total accidents result in casualties to persons, as noted above.

**Casualties to "Other nontrespassers" happen chiefly at highway grade crossings. Total highway grade-crossing casualties for all classes of persons, including both trespassers and nontrespassers, were as follows:

Persons:				
Killed	100	91	848	808
Injured	214	239	2,261	2,211

Milwaukee's Student Fares "Very Successful"

Reduced passenger fares available to student groups making educational trips — an experiment begun by the Milwaukee last spring *(Railway Age*, April 2, page 74) — have proved "very successful" and are being extended. Groups of 15 or more students can qualify for the reduction, which varies depending on the size of the group. The rates are intended to stimulate travel to centers where museums, art institutes, educational institutions, or state and federal buildings are located, but may also be used to historic and scenic spots along the railroad.

A Milwaukee spokesman told *Railway Age* that a considerable amount of new business — particularly on trains between Chicago, Madison, Wis., and Milwaukee — was developed as a direct result of the student fares. "Without the fares," he said, "we feel sure this business would have gone by bus or private auto. All the groups were small enough that we could handle them in regular equipment so this extra traffic entailed no added operating expenses."

Working in conjunction with school authorities and parent-teacher associations, Milwaukee passenger and ticket agents will handle arrangements.

REFERENCE-LESS TIMETABLE

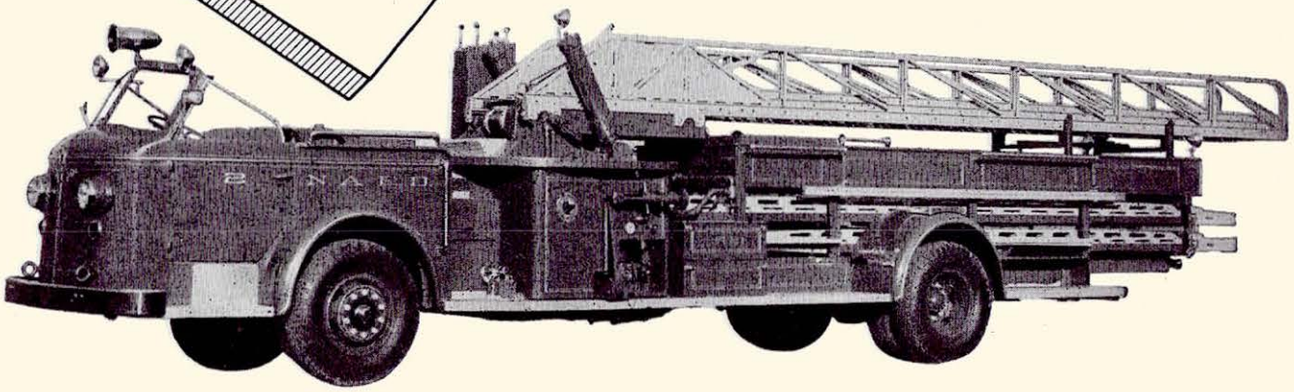
What is claimed to be "the first timetable in history to be printed entirely in plain English, so that anyone who can read can understand it," has just been issued by the ABC Pathfinder, of Winchester, Mass., on its 92nd birthday.

The new timetable shows, in alphabetical listings, when and where all trains and planes depart from Boston to, and the times they return from, over 450 communities in New England, and also to and from such key cities as New York, Chicago, Washington, St. Louis, Montreal, etc. It likewise shows average travel time and one-way and round-trip fares, including tax. A typical train schedule, with similar information for planes and condensed information for buses, reads as follows:

"BANGOR, Me. 250 miles 6 hrs. Coaches 1W $9.72 1D RT $14.58 30D RT $17.27. Parlor Cars 1W $11.50 RT $20.70. Sleeping Cars 1W $12.94. B&M trains leave No. Sta. Mon. thru Sat. AM 2:25 9:45 12 noon PM 4:30 7:30 10:30 (no 10:30 on Saturdays). Sundays AM 1:05 9:10 PM 7:00 10:30. From Bangor Mon. thru Sat. AM 2:50 (no 2:50 on Mondays) 6:50 PM 1:40 4:40 11:00. Sundays AM 2:50 7:05. PM 2:20 4:55 11:00."

The new format was developed for the 92-year-old Pathfinder—whose previous timetables have included standard railroad and airline reference marks—by Herbert L. Baldwin, formerly assistant vice-president of the New York, New Haven & Hartford and previously publicity manager of the Boston & Maine. "Of course," Mr. Baldwin wrote *Railway Age*, "we have some slight advantage over the railroads, in that we had to deal only with transportation in and out of Boston, but I do think we have at least made a start in getting a timetable that anyone can read."

READY for Action!



FIRE fighting equipment must be in readiness for emergency service at all times.

Likewise steam locomotives should be maintained to meet emergency service ...they will certainly be called on

Anticipate such demands by providing the necessary replacement stock of vital parts that will be needed to recondition and to maintain them.

Check your reserve stock of parts for SUPERHEATERS, FEEDWATER HEATERS, EXHAUST STEAM INJECTORS, STEAM DRIERS, THROTTLES AND HEADER CASTINGS.

With material shortages and increased demands on our facilities, delivery schedules are lengthening. Act now... it is later than you think.

THE
SUPERHEATER CO., INC.
Division of
COMBUSTION ENGINEERING-SUPERHEATER, INC.
200 Madison Ave., NEW YORK 16
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Montreal, Canada, THE SUPERHEATER COMPANY, Ltd.
Representing AMERICAN THROTTLE COMPANY, INC.

Superheaters · Pyrometers · Injectors · Steam Driers · Feedwater Heaters · Steam Generators · Oil Separators · Welded Boiler Shells · Throttles

OVERSEAS

Belgium.—Plans have been completed by Sabena Belgian Airlines, the Belgian Railways and the Brussels city government to construct a city air terminal which will adjoin the Central Railroad Station and be served by a rail line operating directly to Welsbroek, known also as Brussels International Airport. The rail line, exclusively for airport-to-city service, will enter the city terminal by a tunnel. Rolling stock will be rubber-tired electric trains. The present 25-min. travel time by bus between airport and city terminal will be cut to about 15 min. Construction is expected to be completed by early 1953.

Thailand.—This country's state railways have invited bids for supply and delivery of railway signaling apparatus, according to a recent issue of Foreign Commerce Weekly. Blueprints and tender forms are available, at $25 a set, from the Acquisition Section, Stores Division, Thai State Railways, Bangkok, Thailand. A deposit of $750 must accompany each bid.

SUPPLY TRADE

L. P. Tracy has been appointed sales engineer of the **Union Switch & Signal Division** of the **Westinghouse Air Brake Company,** with headquarters at Chicago. Mr. Tracy, born in Columbus, Ohio, on February 15, 1911, was graduated from Ohio State University in 1932, with a B.S.

L. P. Tracy

degree in electrical engineering. After graduation he joined the Pennsylvania as an electrician apprentice and was promoted through various positions to that of assistant supervisor, telegraph and signals, the position he held when he joined Union Switch & Signal in the above capacity.

John F. Ducey, Jr. (above), and Sam R. Watkins (below), whose appointments as assistant vice-presidents in the sales department of the Brake Shoe & Castings division of American Brake Shoe Company were reported on page 62 of last week's issue. Mr. Ducey, born in Detroit, was graduated from Harvard

University and joined Brake Shoe in 1936. His headquarters will be 1010 Russ building, San Francisco. Mr. Watkins, who was born in Atlanta, joined the firm in 1940 after graduation from Yale University. He will be located at 230 Park avenue, New York

Contibu of St. Louis, Inc., has announced appointment of **S. O. Taylor & Co.** as national distributor of "Dilec" electric motor cleaner and allied products.

W. G. Scholl, formerly general sales manager of the **Allis-Chalmers Manufacturing Company's** tractor division, has been elected vice-president in charge of sales for the division.

The **Hyatt Bearings Division** of **General Motors Corporation** has announced appointment of **Frank H. Webster** as assistant manager—western division, Chicago.

Charles F. Palmer, for many years manager of railway sales for the **Pittsburgh Steel Company,** and a widely known figure in the railway supply field, retired from active duty on August 31. He has been succeeded by **William G. Gray** who has been with Pittsburgh steel since 1944 as railway development engineer on tubular railway axles.

OBITUARY

Edwin L. Hettinger, for more than 30 years director of optical research at Willson Products, Inc., died on September 2 at the age of 72.

C. Arthur Dunn, retired manager of the railroad sales division, Ex-Cell-O Corporation, died at his Detroit home on August 28. Mr. Dunn, who had been ill a long time, was born on December 23, 1884.

EQUIPMENT AND SUPPLIES

Seaboard Orders 25 Diesels and 1,000 Cars

The Seaboard Air Line has ordered 25 diesel-electric locomotive units and 1,000 freight cars, at an approximate cost of $9,220,000. The motive power—15 1,500-hp. freight and 10 1,600-hp. passenger units—will be built by the Electro-Motive Division of General Motors Corporation and is scheduled for delivery in December and January. The Pullman-Standard Car Manufacturing Company will construct the cars, which include 400 70-ton cement cars and 300 50-ton high-side and 300 50-ton low-side gondola cars, all scheduled for delivery in September and October of 1952.

LOCOMOTIVES

The **Missouri-Kansas-Texas** has been authorized to purchase 20 1,200-hp. diesel switchers at a cost of approximately $2,050,000. Orders will be placed with the Electro-Motive Division of General Motors Corporation and with the Baldwin-Lima-Hamilton Corporation. The number of units to be ordered from each has not been announced. When delivered in February 1952, the new locomotives will bring to 144 (197 units) the number of diesel locomotives in service on the Katy.

FREIGHT CARS

7,183 Freight Cars Delivered in August

August deliveries of new freight cars for domestic use totaled 7,183 units, the American Railway Car Institute and the Association of Ameri-

(*Continued on page* 100)

FILE NO. 804A

CHICAGO, MILWAUKEE,
ST. PAUL AND PACIFIC
RAILROAD CO.

The Milwaukee Road story is one of progress through expansion and improvement of facilities and equipment. Here are facts on the part being played by Fairbanks—Morse Opposed-Piston Diesel locomotives in the Milwaukee Terminal.. heart of their modernized freight operation.

CHICAGO, MILWAUKEE, ST. PAUL AND PACIFIC RAILROAD...(MILWAUKEE TERMINAL)

*Here are pictures of**

Hot Shot Freight ... on train No. 69 is taken over by Fairbanks-Morse engine 1831 — 2 minutes after arrival in West Yard. As 1831 starts fast classification of this train, Fairbanks-Morse engine 1821 pulls its drag up the adjoining lead to make up trains for North and West connections.

Airline Yard ... where you'll find Fairbanks-Morse engine 1823 working alongside bulldozers and track crews, improving this receiving yard for North and West freight. Fairbanks-Morse locomotives are maintaining an "on time" schedule of freight movement through this yard during construction work.

**High Utilization...*
1,028,426 miles

5 Rings ... is the unusual name of this yard where Fairbanks-Morse engine 1817 gives usual Fairbanks-Morse fast, dependable service. In this yard — throughout the Milwaukee Terminal — Opposed-Piston Diesel power provides the answer to the many problems of switcher service.

**High availability*
97%

Down the Lead ... in Muskego Yard comes Fairbanks-Morse engine 1821 with a newly arrived train which will soon be classified for North and West connections. Completing the Fairbanks-Morse team is engine 1831 and Fairbanks-Morse track scale in yard shanty to the right.

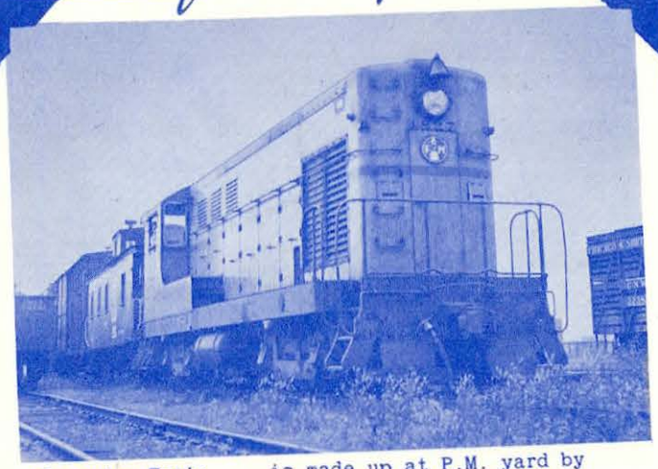
*All figures are for 1950

CHICAGO, MILWAUKEE, ST. PAUL AND PACIFIC RAILROAD...(MILWAUKEE TERMINAL)

First of the Fleet ... of new Fairbanks-Morse Consolidation Line Diesel locomotives ordered by the Milwaukee, engine 23 leaves the terminal on train No. 83 with 80 cars for Minneapolis. Chances are this 3-unit, 4800 hp. locomotive will be assigned to an ore extra on the return run -- where train loads add up to 8 or 9 thousand tons

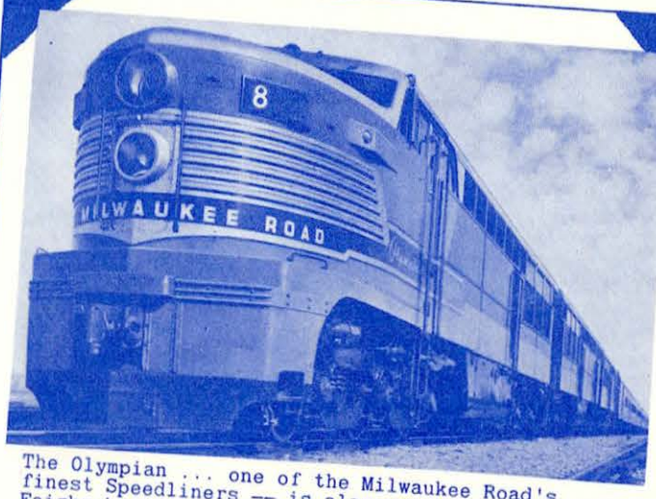
*Economy... 1 gallon fuel oil/mile

Beer on the Move ... 80,000 revenue cars a year are handled here at the Chestnut Street Station, freight yard for one of the world's largest brewery areas. Fairbanks-Morse 1000 hp. Diesel locomotives like engine 1813 provide the agility and top availability necessary for smooth, trouble-free freight operation here as elsewhere in Milwaukee Terminal.



Seagoing Train ... is made up at P.M. yard by Fairbanks-Morse engine 1827. Fairbanks-Morse switchers are assigned to round-the-clock duty by the Milwaukee Road here at the Maple Street Slip of the Chesapeake & Ohio, handling trains of coal and steel for the 4 arriving and departing ships that dock here daily.

*Low Maintenance 12.9¢ per mile



The Olympian ... one of the Milwaukee Road's finest Speedliners -- is also powered by Fairbanks-Morse Opposed-Piston Diesel locomotives, engine No. 8. One of the first to use Fairbanks-Morse road locomotives, the Milwaukee Road knows the economy, versatility and ease of maintenance with Opposed-Piston power.

Fairbanks, Morse & Co.

600 SOUTH MICHIGAN AVENUE

CHICAGO 5

These are facts. They spell out performance -- one of the basic reasons behind the Milwaukee Road's decision to make Milwaukee Terminal switchers 100% Fairbanks-Morse.

They show the advantages of Fairbanks-Morse Opposed-Piston Diesel power. That's why you'll see Fairbanks-Morse locomotives at the "head end" of more and more trains -- in all classes of service -- from heaviest duty freight, to yard duty, to de luxe, high-speed streamliners.

Fairbanks-Morse locomotives, powered by Opposed-Piston Diesel engines, have a background of development and use on major roads all over the country -- they have a future on your road even more promising than their impressive past.

Two unit, 4800 hp. "C Line" Locomotive on its demonstration tour made one of its first stops at Milwaukee Depot. The newest in locomotive engineering, the "C Line" is built to railroad men's standards of compact power ... top performance in all speed ranges...versatility for all classes of service ...ease of maintenance.

FAIRBANKS-MORSE,

a name worth remembering

DIESEL LOCOMOTIVES AND ENGINES • ELECTRICAL MACHINERY • PUMPS • SCALES • HOME WATER SERVICE EQUIPMENT • RAIL CARS • FARM MACHINERY • MAGNETOS

NEW YORK CENTRAL SYSTEM

In the Past Year Specified

ENTERPRISE

UNIT DOOR LATCHES and "T" SECTION FRAMES

For 4000 New Hopper Cars

50-Ton Hopper Car
equipped with Enterprise
Unit Door Latches and "T" Section Frames.

The Advantages of *ENTERPRISE* UNIT DOOR LATCHES

Rugged Construction—Will Last Life of Car
No Connecting Door Brace Required
Save Weight and Reduce Car Parts
Tight Door Closure for Finest of Ladings
Prevents Loss from Spill.

Door Operating Devices Exclusively Since 1903

ENTERPRISE RAILWAY EQUIPMENT COMPANY

59 East Van Buren Street • Chicago 5, Illinois

(Continued from page 98)

can Railroads have jointly announced. Labor difficulties at two car building plants, which have now been settled, kept production down, the announcement said. Orders for 1,828 new freight cars for domestic use were placed last month, the announcement added, bringing the backlog of cars on order on August 31 to 139,014. A breakdown of cars ordered and delivered in August, and of cars on order on September 1, is given in the accompanying table.

Type	Ordered Aug. 1951	Delivered Aug. 1951	On Order & Undelivered Sept. 1, 1951
Box—Plain	352	2,408	46,850
Box—Auto	....	383	1,667
Flat	....	322	3,590
Gondola	....	2,100	25,594
Hopper	530	246	37,652
Covered Hopper	65	358	5,111
Refrigerator	550	650	6,220
Stock	....	....	1,000
Tank	311	702	9,890
Caboose	....	14	462
Other	20	....	978
TOTAL	1,828	7,183	139,014
Carbuilders	1,728	5,156	95,510
Railroad Shops	100	2,027	43,504

The **Texas & Pacific** will build 25 steel cabooses at its Marshall (Tex.) shops sometime during 1952. Ordering of materials has been approved but the actual construction date depends on availability of necessary materials.

SIGNALING

The **Union Pacific** has ordered from the Union Switch & Signal Division of Westinghouse Air Brake Company 30 sets of three-indication type E coded continuous cab signal equipment for installation on steam locomotives now in service.

ORGANIZATIONS

Tie Producers' Convention

The thirty-third annual convention of the Railway Tie Association will be held at the Netherland Plaza Hotel, Cincinnati, September 26-28. The program will include a number of reports or addresses on subjects of direct or indirect interest to railroad men. All sessions of the convention will be directed by Walter P. Arnold, president of the association, and vice-president, Koppers Company, Pittsburgh. The detailed program follows:

SEPTEMBER 26

Opening business

Address of welcome—T. C. Smith, general manager, Baltimore & Ohio.

Response—H. R. Condon, vice-president, Koppers Company, and past president of the association.

Annual report of president

Address—Prospective Railroad Earnings and Expenditures—Dr. Julius H. Parmelee, vice-president and director, Bureau of Railway Economics, Association of American Railroads.

Report of Committee on Mechanical Handling of Crossties—M. L. Wilson, chairman, Kirby Lumber Corporation, Beaumont, Tex.

Address—Trends in Mechanical Power in Tie Production—W. E. Tiller, president, Tiller Tie & Lumber Co., Little Rock, Ark.

Report of Committee on Concentration of Yard Operations—George B. Campbell, Jr., chairman, Tiller Tie & Lumber Co.

Address—Service Life of Doweled Ties—M. G. Kirk, Pittsburgh Screw & Bolt Corp., Pittsburgh.

Report of Specifications Committee—E. J. McGehee, vice-president, Koppers Company, Chicago.

Annual dinner, to be preceded by reception at 7 p.m.

SEPTEMBER 27

Report of Manufacturing Practices Committee—Woodrow Epperson, chairman, Gross & Janes Co., Arkadelphia, Ark.

Address—100 Years of Ties on the Milwaukee—W. G. Powrie, chief engineer, Chicago, Milwaukee, St. Paul & Pacific.

Addresses on Banding of Crossties: Our Experience with Banding—F. S. Shinn, tie & timber agent, Nickel Plate; Savings to be Effected by Banding—F. E. Houck, manager of sales, Steel Strapping division, Brainard Steel Company, Warren, Ohio.

Report of National Affairs Committee—John F. Renfro, chairman, Taylor-Colquitt Company, Spartanburg, S. C.

Addresses on Use of Hickory for Crossties: Experiences of the Norfolk & Western—representative of engineering department, N. & W.; More Use of Hickory Ties from the Standpoint of Operation—Buford Holley, T. J. Moss Tie Company, St. Louis; What the Record Reveals on the Use of Hickory—Dr. George H. Englerth, Southeastern Forestry Experiment Station, U. S. Department of Agriculture, Asheville, N. C.; Vapor Drying Hickory Ties—Monie S. Hudson, Taylor-Colquitt Company.

Address—Problems the Crosstie Industry Has Faced in the Last 12 Months—W. J. Chambliss, vice-president, Boad Brothers, Louisville.

Annual Luncheon

Address—The Railroad Outlook—John E. Tilford, president, Louisville & Nashville.

Address—A Message From the Wood Preservers—R. H. Bescher, vice-president, American Wood-Preservers' Association, Orrville, Ohio

Report of Committee on Checking and Splitting of Crossties—J. A. Vaughan, chairman, Southern Wood Preserving Company, Atlanta.

SEPTEMBER 28

Report of Timber Conservation Committee—D. B. Mabry, chairman, T. J. Moss Tie Company.

Address—Some Social Aspects of Forest Conservation—Charles E. Lively, Department of Rural Sociology, University of Missouri.

Address—Research Test Work on the L. & N.—L. L. Adams, chief engineer, L. & N.

Address—The O.P.S. and the Crosstie Industry—Norman O. Cruver, chief of the Lumber and Wood Products Branch, Office of Price Stabilization, Washington, D. C.

Address—Problems of Procurement of Crossties—Paul D. Brentlinger, forester, Pennsylvania.

The **Central Electric Railfans Association,** Chicago, has announced that publication of its bulletins will be suspended after release (about October 1) of Bulletin 95, "Electric Railways of Washington State." Since its founding in 1938, the association has chronicled both the history and current operation of numerous electric railroads throughout the country. The ever-increasing demand for these documents has led to a "growing and unreasonable" burden of time and effort for its unpaid, elected officers, the association said. "As no alternate method of producing the bulletins proved workable, the board of directors has reluctantly ordered their suspension." The association's local activities in Chicago — including its regular monthly meetings — continue as before.

The French Lick Spring Hotel, French Lick, Ind., will be the scene of the next regular meeting of the **Mid-West Shippers Advisory Board** to be held October 17 and 18. A special train direct to the hotel grounds will be operated by the Monon, leaving Chicago at 3 p.m. October 16. Following the meeting, the train will return to Chicago, arriving about 10 p.m. The name of the speaker at the luncheon session will be announced at a later date.

The **National Defense Transportation Association** will hold its sixth annual convention in San Antonio, Tex., October 8-10. Among those scheduled to speak are: Maj. Gen. Frank A. Heileman, the Army's chief of transportation; D. V. Fraser, president of the Missouri-Kansas-Texas; Chester Thompson, president of American Waterways Operators; Kenneth L. Vore, director of the Military Traffic Service; Giles Morrow, executive secretary of the Freight Forwarders Institute; and Leland James, president of American Trucking Associations.

The **Traffic Club of New York** will have a golf outing on September 20, at the Canoe Brook Country Club, Summit, N. J. The regular monthly business meeting will be held on the evening of September 25, in the Biltmore Hotel, New York, at which time a nominating committee will be elected.

The **Pacific Northwest Advisory Board** will hold its 81st meeting in the Chinook Hotel, Yakima, Wash., on September 20-21. R. V. Boyle, board president and traffic manager of Brown & Haley, Tacoma, will preside. Guest speaker will be Owen Clarke, retiring chairman of the Washington Public Service Commission. E. W. Coughlin, manager, railroad relations, Car Service Division of the Association of American Railroads, will report on national transportation conditions.

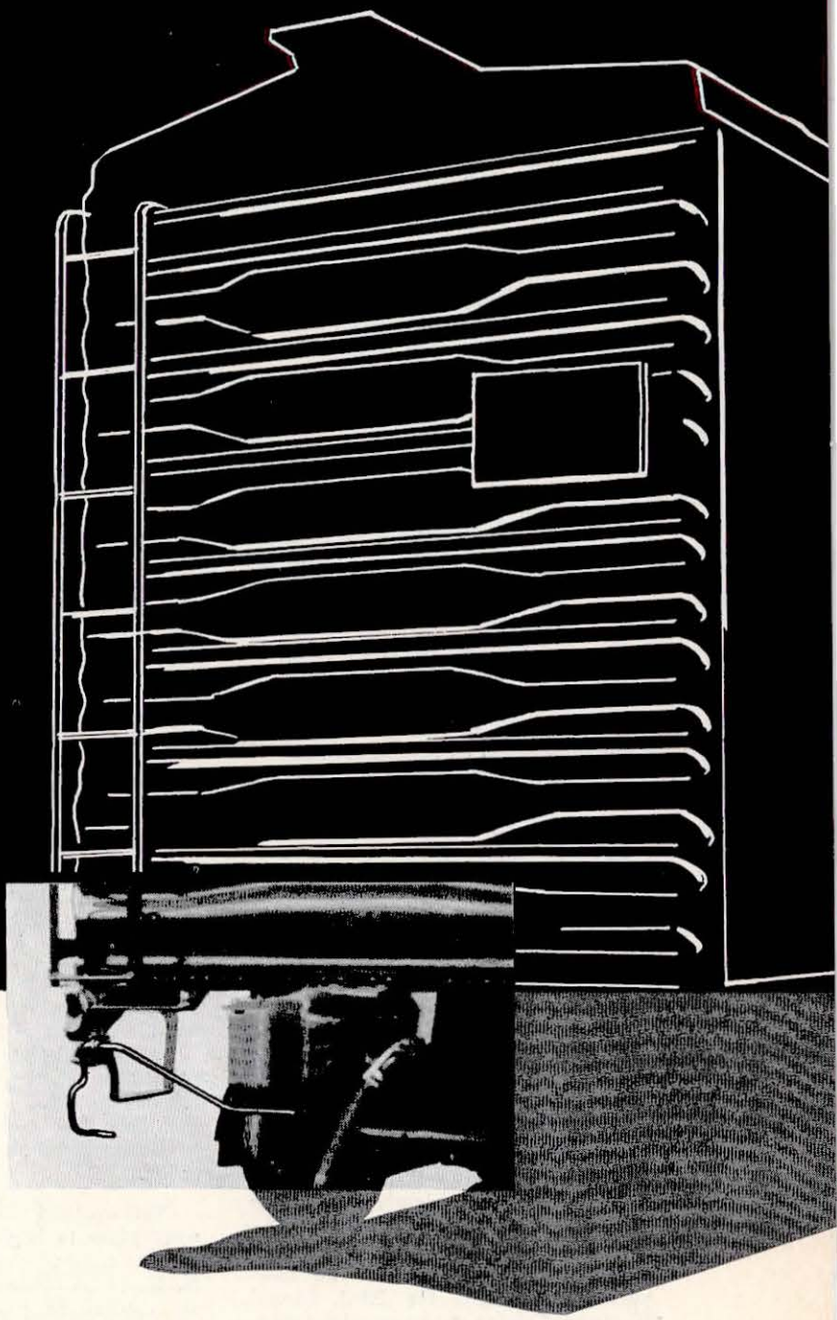
The **Safety Section** of the **Association of American Railroads** will hold a regional meeting in New York on September 25. The meeting will be sponsored by the **Metropolitan Superintendents Association of New York** and will be held in the Hotel Statler at 9 a.m.

Regional meetings of the **Protective Section** of the **Association of American Railroads** have been called for September 26 at San Francisco, and September 27 at Roanoke, Va. The San Francisco meeting will be held in Room 801, Southern Pacific building, 65 Market street, at 9:30 a.m., P.D.T. The Roanoke meeting will be in the Hotel Roanoke, also at 9:30 a.m.

The **Ohio Valley Transportation Advisory Board** will meet on September 19 in the Brown Hotel, Louisville, Ky. Committee meetings will be held the day before in the same hotel. The luncheon session, sponsored jointly by the **Transportation Club of Louisville** and the **Louisville Chamber of Commerce,** will feature Emmet Howe, secretary-treasurer of Appalachian Coals, Inc., as guest speaker.

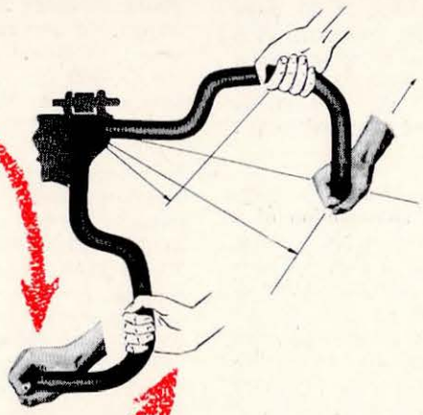
The **Railroad Club of Chicago** plans to operate an inspection tour

here's something new



This hand position on the new, *safe*, inwardly projecting handle, requires 50% less pull to operate the coupler than

This hand position



Standard Coupler Device

For type E and F couplers A.A.R. APPROVED

(see A.A.R. Mechanical Division Circular DV-1246, article 5 and Fig. 2)

Standard **RAILWAY EQUIPMENT MANUFACTURING COMPANY**

310 S. Michigan Avenue, Chicago 4 • 247 Park Avenue, New York 17

of the Pennsylvania's Logansport (Ind.) and Fort Wayne enginehouses on October 14. A special train will leave Chicago Union Station at 7:30 a.m. Tickets, which include a box lunch, may be obtained from any P.R.R. ticket office in Chicago.

The next meeting of the **Western Railway Club** (Chicago) will be held on October 8. The detailed program for this "Mechanical Night" meeting will be announced at a later date.

"Railroads and the Regional Transportation System" will be the subject of a luncheon address by William Reid, president of the Hudson & Manhattan and former chairman of the New York City Board of Transportation, at the Sixth Regional Plan Conference, to be sponsored by the **Regional Plan Association,** at the Hotel Roosevelt, New York, on October 9. The luncheon session will be the highlight of an all-day meeting on community and regional planning. Paul Windels, president of the R.P.A., will preside at the luncheon.

The **Cincinnati Railroad Club** is planning to visit the roundhouse and yards of the Illinois Central in Indianapolis and the Belt shops of the Indianapolis Union on September 23. The group will leave Cincinnati on the New York Central at 9:25 a.m., E.S.T., and return to Cincinnati at 9:05 p.m.

When the **New England Shippers Advisory Board** meets at the Mount Washington Hotel, Bretton Woods, N. H., September 26-28, the guest speaker at the board's September 27 banquet will be Laurence F. Whittemore, president of the Brown Company and former president of the New York, New Haven & Hartford.

The **Transportation Club of Milwaukee** will hold the first monthly meeting of its 1951-52 fiscal year in the ballroom of the Wisconsin Hotel, Milwaukee, on September 19. The meeting will begin at 8 p.m.

More than 20 authorities on business will address the 23rd annual **Boston Conference on Distribution** to be held October 15-16 at the Hotel Statler, Boston.

A combination "Hudson River Railroad Centennial and Autumn Scenic Trip" over the New York Central on September 29 will be sponsored cooperatively by the **Railroad Enthusiasts, Inc.,** the **Railroadians of America, Railroad Magazine,** the **National Railway Historical Society,** the **New York Historical Society,** the **Hudson River Conservation Society** and the **Railway & Locomotive Historical Society.** A special train of deluxe equipment will leave Grand Central Terminal, New York, at 8:20 a.m., E. S. T., for Troy, N. Y., Schenectady, Selkirk yard and Chatham, returning to New York via the Central's Harlem River Line at 8:20 p.m.

CAR SERVICE

Revised I.C.C. Service Order No. 874, which prescribes heavy-loading requirements for shipments of grain, grain products and by-products, has been modified by Amendment No. 1, which set back the expiration date from September 15 until March 15, 1952.

CONSTRUCTION

Atchison, Topeka & Santa Fe.—The Beverly Hills (Cal.) city ticket office will be moved from 9429 Wilshire boulevard to 9455 Wilshire boulevard; the Pozzo Construction Company of Los Angeles has been awarded a contract covering the entire relocation. The Wm. P. Neil Company, also of Los Angeles, has been awarded a contract covering rearrangement of the interior of an old pipe shop at Hobart yard, Vernon, for use as a planing mill and tin shop.

Chicago, Rock Island & Pacific.—The I.C.C. has postponed, for an indefinite time, its recent order authorizing this road to construct approximately 33.8 miles of new line between Atlantic, Iowa, and McClelland. (*Railway Age*, August 20, page 72, and September 10, page 67.) Various parties are protesting the Rock Island's proposal to relocate its main line and have asked the commission for reconsideration of the earlier decision.

National of Mexico.—This company plans to begin construction of a large freight car shop at Monterrey, N. L., to be financed in part by private capital, in part by the Bank of Mexico, and in part by part of the credit of $56 million recently granted by the Export-Import Bank for rehabilitation of Mexican railways (*Railway Age*, August 20, page 38). Initially, the new shop will function as an assembly plant, but facilities will be gradually expanded to the point where it can produce around 1,200 freight cars per year. The Mexican government is also reported to be taking steps to permit private corporations to purchase cars for operation in Mexico. Reports indicate that this may eventually augment the country's freight car supply by some 6,000 units.

New York Central System.—An extensive program of freight yard improvements, keyed to rapid industrial expansion in areas served by the Central and to industry's anticipated future needs is being launched. Involving expenditure of several millions of dollars at five important freight centers in four states, the program will provide greater yard capacity and flexibility, resulting in faster, more efficient service, the railroad pointed out in a September 13 announcement.

Yards included in the program are at Detroit; Elkhart, Ind., and Hammond; McKees Rocks, Pa.; and Syracuse, N. Y. In each case yards will be enlarged and rearranged to permit more rapid classification of cars and prompter movement of trains. Work on the projects either has begun, some of it having been previously reported in *Railway Age*, or will begin shortly at all locations.

At North yards in Detroit, where volume of freight handled has nearly doubled in the past 10 years, 14 new tracks will be added—five in the receiving yard and nine in the classification yard. In addition, a track scale—to permit weighing of cars while being switched—will be installed. The Elkhart yards, which funnel freight to and from the Chicago area and its western gateways, will gain more "elbow room" for handling cars through addition of two tracks and lengthening of two others in the eastbound yard and construction of two new tracks in the westbound yard. An increase of 740 cars in yard capacity will result.

At Hammond, site of the Gibson yards of the Indiana Harbor Belt, eastbound and westbound classification yards will be enlarged, the humping yard will be regraded, and new diesel servicing facilities will be installed. When the program is completed, Gibson—main yard of the I.H.B.—will be able to classify 3,800 cars a day. At McKees Rocks, on the Pittsburgh & Lake Erie, tracks and a track scale in the westbound yard will be relocated. The yard hump will be removed and switching will be changed from the hump to the level method. Combining with the McKees Rocks improvement, will be installation of centralized traffic control on 13.4 miles of road between nearby Neville and West Economy.

Faster dispatching of eastbound freight trains from DeWitt yards at Syracuse will result from track alterations to be made there. Nine tracks will be extended, and four in the eastbound advance yard will be connected with tracks in the classification yard. DeWitt improvements include installation of four more million-gallon diesel fuel oil storage tanks, which will make a total of six such tanks there.

Southern.—The following projects have been authorized at indicated probable costs: Construction of additional

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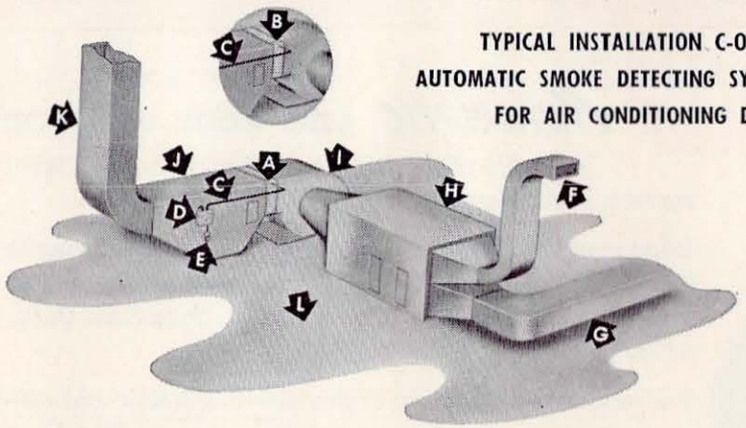

A perforated smoke accumulating pipe
B smoke accumulating pitot tube (alternate)
C pipe line for carrying continuous air samples to smoke detector
D smoke detector
E audible alarm
F fresh air intake and duct
G return air duct
H air cleaning unit
I air fan
J air cooling and heating unit
K supply air duct
L floor level

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track facilities at John Sevier, Tenn. ($562,000); replacing light steel viaduct with embankment and steel bridge over highway on new alinement near Ramsey, Ind. ($291,000); constructing tracks to serve Kaiser Engineers, Inc., at Port Chalmette, La. ($91,215), and Corning Glass Works at Danville, Ky. ($23,699); extending passing tracks at Evensville, Tenn. ($30,880), Roddy ($23,050), and Rockwood ($20,100); and replacing timber trestle with steel bridge near Smith, S. C. ($42,800), and near Siloam ($24,600). All projects except that near Ramsey will be undertaken by the road's own forces.

FINANCIAL

Bangor & Aroostook.—*New Directors.*—Ernest D. van Loben Sels, of Oakland, Cal., and Thomas E. Houghton, of Fort Fairfield, Me., have been elected to this road's board of directors.

Central Vermont.—*Purchase of New London Northern.*—This road has applied to the I.C.C. for authority to purchase all properties, franchises, and assets, except liquid assets, of the N.L.N. The Central, through its subsidiary, the Centmont Corporation, already owns 14,937 of the 15,000 shares of outstanding N.L.N. common. Upon completion of the present purchase, involving the total sum of $2,672,203, the N.L.N. would be dissolved. Funds to complete the transaction would be advanced to Central by the Canadian National, its owner.

Chicago, Burlington & Quincy.—*Spur Track Operation.*—The 9-mile line being operated by this road between Lewiston, Ill., and South Liverpool is not a "spur" track within the exemption of the Interstate Commerce Act, according to the I.C.C.'s Division 4. The division has dismissed a motion asking the I.C.C. to find that it has no jurisdiction over the line. (*Railway Age*, August 13, page 74.) The Burlington has been charged with operating over the segment without having obtained a certificate of public necessity.

Great Northern.—*Acquisition of Pacific Coast Railroad.*—This road has been authorized by Division 4 of the I.C.C. to acquire control of the 30-mile Pacific Coast, through ownership of its capital stock. The acquisition, involving 10,000 shares of P.C. stock, will cost the G.N. $1,700,000. Division 4 imposed conditions asked by intervening roads which will insure the continued neutrality of the P.C. in handling traffic with other carriers. The P.C. extends from Seattle, Wash., to Black Diamond. (*Railway Age* of November 18, 1950, page 80.)

Long Island.—*Reorganization.*—Division 4 of the I.C.C. has fixed the sum of $27,500 a year as payment to the firm of Shearman & Sterling & Wright, counsel for this road's trustee.

Long Island.—*Sale of Rockaway Branch.*—Subject to approval by the city's Board of Estimate, the New York City Board of Transportation reportedly plans to offer this company $8,500,000 for purchase of its Rockaway Beach branch. This branch extends from the railroad's main line at Rego Park to the Rockaways, but trains have been operated only to Hamilton Beach since the wooden trestle across Jamaica bay between Hamilton Beach and the Rockaways was destroyed by fire in May 1950. If purchased by the city, the line would be incorporated into the city's rapid transit system, a project which has been under consideration for at least 18 years.

Missouri Pacific.—*Back Bond Interest.*—Federal District Court Judge George H. Moore has set September 28 as the date for a hearing on the petition of Guy A. Thompson, trustee for the M.P., seeking permission to pay $35,088,575 in accrued interest on bonds of the company and its subsidiary International Great Northern. Mr. Thompson said the payments would be made from funds on hand and would not interfere with the road's reorganization plan. Of the total amount, $33,478,575 would cover back interest on 5 per cent first and refunding bonds due for six-month periods from 1943 through 1946, including Series A and I, due August 1, 1943, to February 1, 1946; Series F, due September 1, 1943, to March 1, 1946; Series G, due May 1, 1943, to November 1, 1945; and Series H, due April 1, 1943 to October 1, 1945. The remaining $1,610,000 would be paid on I.-G.N. first mortgage bonds due for two six-month periods of 1943.

Missouri-Pacific. — *Reorganization.*—James B. Morris has been authorized to intervene in this proceeding, as successor in interest to the late John Speed Elliott. Mr. Elliott, who took an active part in the case, owned $719,000 of the M.P. 5¼ per cent secured serial gold bonds and $30,000 par value shares of common stock of the New Orleans, Texas & Mexico.

New York Central.—*New Line to Joppa, Ill.*—The I.C.C. has authorized the Chicago & Eastern Illinois to intervene in opposition to this road's request for authority to serve Joppa, Ill. The Cleveland, Cincinnati, Chicago & St. Louis, which is leased by N.Y.C., would construct a 11.2-mile line from Karnak, Ill., to Joppa, and the N.Y.C. would operate the new trackage. This proposal is opposed by the C.&E.I. on grounds that the latter now serves Joppa "adequately and exclusively," and construction of

Aeroquip

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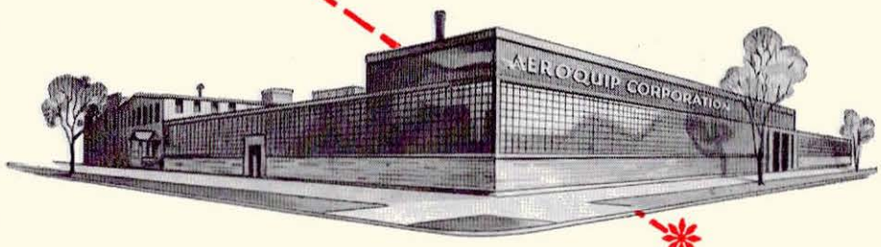

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the new trackage would constitute a "wasteful duplication" of rail facilities. An electric generating plant now under construction at Joppa will require about 6,500 tons of coal per day when it begins operation. (*Railway Age*, August 20, page 72.)

Western Pacific.—*First and Refunding Mortgage Bonds.*—This road has asked the I.C.C. for authority to use the unexpended balance of $6,001,416, from the sale of its first and refunding mortgage bonds, to reimburse its treasury in part for new equipment costs in 1951 and 1952. W. P. obtained authority to sell $22,000,000 of the first and refunding mortgage bonds earlier this year. Among other things, the proceeds were to redeem outstanding general mortgage 4½ per cent income bonds, but only $90,200 of the latter were turned in under the road's conversion offer. The $6,001,416 is now invested in short-term government notes. This amount would be transferred to the company treasury as reimbursement for part of the net cost of new equipment. This equipment includes 5 new diesel-electric locomotives, rebuilding 900 refrigerator cars, and purchase of 400 gondola and 100 hopper cars.

New Securities

Applications have been filed with the I.C.C. by:

CHESAPEAKE & OHIO.—To assume liability for $6,300,000 of equipment trust certificates to finance in part 50 diesel-electric locomotives, costing an estimated $7,962,960. The new equipment is as follows:

	Description and Builder	Estimated Unit Cost
2	4,500-hp. passenger locomotives (Electro-Motive Division, General Motors Corporation)	$467,616
2	2,250-hp. passenger locomotives (Electro-Motive)	233,808
34	1,500-hp. road-switching locomotives (Electro-Motive)	156,248
8	1,200-hp. switching locomotives (Electro-Motive)	103,130
4	1,200-hp. switching locomotives (Electro-Motive)	105,570

The certificates, to be dated October 1, would mature in 30 semiannual installments of $210,000 each, beginning April 1, 1952. They would be sold on competitive bids, with the interest rate to be set by such bids.

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—To assume liability for $7,500,000 of series 00 equipment trust certificates, to finance in part 47 diesel-electric locomotives, costing an estimated $10,068,622. The equipment is as follows:

	Description and Builder	Estimated Unit Cost
6	4,500-hp. freight locomotives, each consisting of three units (Electro-Motive Division, General Motors Corporation)	$520,264
6	4,500-hp. passenger locomotives, each consisting of three units (Electro-Motive)	544,839
3	1,200-hp. switching locomotives (Electro-Motive)	106,138
15	1,000-hp. switching locomotives (American Locomotive Company)	105,257
7	1,200-hp. switching locomotives (Baldwin-Lima-Hamilton Corporation)	104,634
10	1,200-hp. switching locomotives (Fairbanks, Morse & Co.)	104,829

The certificates, to be dated October 1, would mature in 30 semiannual installments of $250,000 each, beginning April 1, 1952. They would be sold on competitive bids, with the interest rate to be set by such bids.

Dividends Declared

SEABOARD AIR LINE.—$1, quarterly, payable September 27 to holders of record September 17.

SOUTHERN.—Mobile & Ohio stock trust, $2, semiannual, payable October 1 to holders of record September 14.

UNION PACIFIC.—common, $1.25, quarterly; 4% preferred, $1, semiannual; both payable October 1 to holders of record September 4.

Security Price Averages

	Sept. 11	Prev. Week	Last Year
Average price of 20 representative railway stocks	54.46	53.64	48.19
Average price of 20 representative railway bonds	93.62	92.31	95.91

RAILWAY OFFICERS

EXECUTIVE

As reported in *Railway Age* September 3, page 95, **Harry B. Light,** general freight traffic manager of the READING, at Philadelphia, has been elected vice-president in charge of freight traffic. Born in Lebanon, Pa., on August 22, 1893, Mr. Light began railroad work in 1911 as a clerk in the freight station of the Philadelphia & Reading (now Reading) at Lebanon, where he remained until 1913. He subsequently served as chief clerk in the express accounting department of the New York, New Haven & Hartford at Boston; in industrial traffic work, and as a salesman. On August 14,

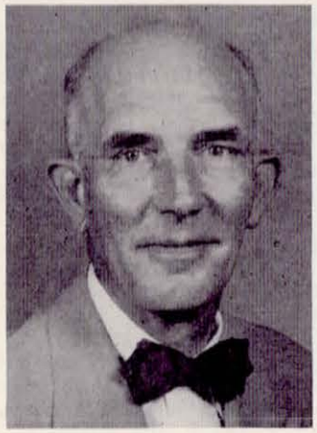
Harry B. Light

1922, he became a rate clerk in the New York office of the Reading, becoming chief clerk in September and freight traffic representative in 1923. In 1926 he became assistant general agent and was promoted to general agent a year later. Mr. Light was named coal freight agent at Philadelphia in 1928, became assistant general freight agent in 1935, and was promoted to general freight agent in 1936, to general coal freight agent in 1938, and to freight traffic manager in 1944. In 1945 he became general freight traffic manager and was placed in charge of the freight traffic department on September 1, 1950.

H. Lee Fulton, Jr., vice-president and comptroller of the CENTRAL OF GEORGIA at Savannah, Ga., has been elected also president of the Fort Wentworth Corporation and its subsidiary Crossgate Homes, Inc. The Port Wentworth Corporation is the holding company of the Savannah & Atlanta. Mr. Fulton succeeds **Robert M. Nelson** of Watch Hill, R. I., from whom the corporation was purchased on August 22 by the C. of Ga.

FINANCIAL, LEGAL & ACCOUNTING

Bernard D. Helmken, who has been elected secretary of the CENTRAL OF GEORGIA at Savannah, Ga. (*Railway Age*, August 13), is a native of that city. Entering the service of the C. of Ga. at the age of 17 as a messenger in the office of the freight claim agent at Savannah, he studied stenography and typing at night and in a short time was appointed a



Bernard D. Helmken

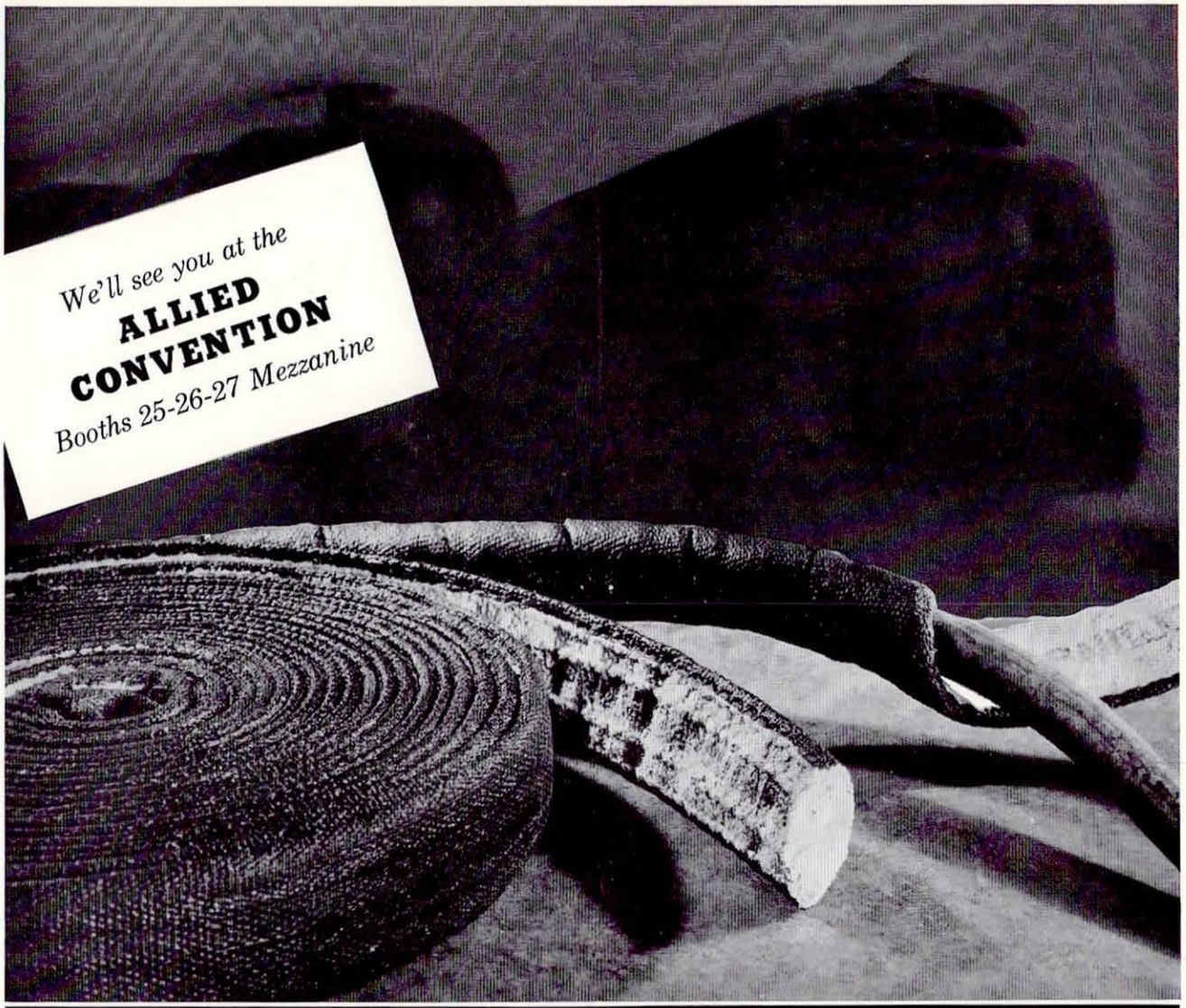
stenographer in that office. He was later transferred to the office of the auditor of disbursements; in 1917 was promoted to secretary to vice-president, and in 1928 became secretary to the assistant to the president. In 1940 Mr. Helmken was elected assistant secretary of the company, and, in addition, served as managing editor of the C. of Ga. magazine until May 1, 1951.

G. Wesley Wildey, assistant secretary-treasurer of the DELAWARE, LACKAWANNA & WESTERN at New York, will retire voluntarily on October 1, under the retirement plan of the company, after 46 years of continuous service with that road.

OPERATING

William F. Giles, Jr., superintendent of the CHICAGO, BURLINGTON & QUINCY's Alliance-Sterling division, has been transferred in that capacity to the Hannibal-Brookfield division, with headquarters at Hannibal, Mo. His successor is **Edward R. Shrader,** heretofore superintendent of the St. Joseph division, who is in turn suc-

(*Continued on page* 111)



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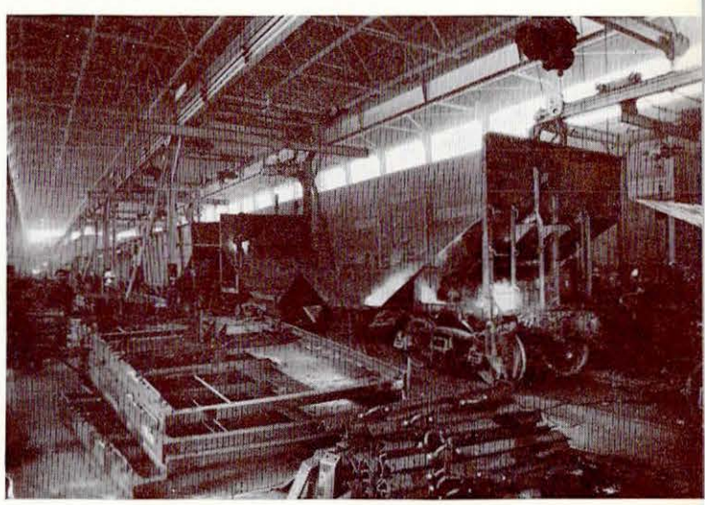

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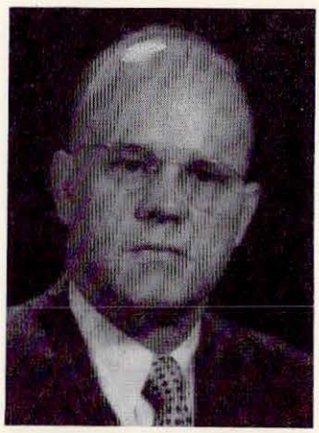
(*Continued from page* 106)
ceeded by **Roy L. Sims,** superintendent of the Casper-Sheridan division.

As reported in *Railway Age* August 13, **Horace W. Waters** has been appointed superintendent of the Macon division of the CENTRAL OF GEORGIA, at Macon, Ga. Mr. Waters began his railroad career on June 1, 1924, as an extra gang laborer on the Savannah division of the C. of Ga. He later became assistant extra gang foreman and extra gang foreman, and in 1931



Horace W. Waters

was promoted to foreman roadway machines. In 1936 he became assistant track supervisor of the Savannah terminals and in January 1938, track supervisor on the Macon division, with headquarters at Dothan, Ala. He left the roadway department in 1941 to bcome assistant trainmaster on the Macon division, and in 1944 was appointed trainmaster, which position he held until his recent appointment.

H. E. Powell, assistant superintendent of the CANADIAN PACIFIC at Windsor, Ont., has been transferred to the Montreal Terminals division at Montreal, succeeding **G. A. Drummond,** whose appointment as acting assistant superintendent at Montreal was reported in *Railway Age* June 18.

William A. Smith, marine supervisor of the JERSEY CENTRAL LINES, has been appointed manager of the marine department at Jersey City, N. J., succeeding **Frank McIntire,** who retired on September 1, after 42 years of service with the Jersey Central.

J. P. Johnson, superintendent of organization of the Southern departments of the RAILWAY EXPRESS AGENCY at Atlanta, Ga., has been appointed superintendent of the Blue Ridge-Kanawha division at Richmond, Va., succeeding **H. R. VanDenbergh,** who retired on August 31 after 52 years of continuous service.

William F. Kusch, manager dining cars of the SOUTHERN SYSTEM at Washington, D. C., retired on September 15, after more than 28 years of service. **Frederick C. Thomas,** superintendent dining cars, has been appointed manager dining cars, with headquarters remaining at Atlanta, Ga., succeeding Mr. Kusch. **Howard O. Noack,** assistant manager dining cars, has been appointed superintendent dining cars, with headquarters as before at Washington. **Edwin L. Frapart,** assistant superintendent dining cars, has been appointed superintendent dining cars at Atlanta. Mr. Kusch was born at Chicago on April 17, 1893, and entered railway service in the dining car department of the Chicago, Milwaukee & St. Paul (now C.M.St.P.&P.) in September 1907 as a clerk. He later served that road as chief clerk, inspector, and chief inspector until August 1923, when he was appointed manager dining cars of the Southern.

Mr. Thomas was born at Madisonville, Tenn., on February 25, 1899, and entered the service of the Southern in June 1915 as a clerk at Asheville, N. C., subsequently serving as assistant stationmaster, steward, dining car agent and dining car inspector. In February 1943 Mr. Thomas was promoted to superintendent dining cars at Chattanooga, Tenn., transferring to Atlanta one year later.

TRAFFIC

As reported in *Railway Age* September 3, **Thomas H. Ramsey, Jr.,** has been appointed freight traffic manager of the READING at Philadelphia. Mr. Ramsey was born at Conshohocken, Pa., on June 7, 1905, and began his career with the Reading as a stenographer at Philadelphia in 1923. He subsequently served as trac-

Thomas H. Ramsey, Jr.

ing clerk, freight traffic representative, traveling freight agent, general agent and New England freight agent. Mr. Ramsey was appointed division freight agent at Harrisburg, Pa., in 1944 and in November 1947 he became western freight traffic manager at Chicago, which position he held until his recent appointment.

As reported in *Railway Age* September 3, **J. Warren Lawson** has been appointed general freight traffic manager of the READING at Philadelphia. Mr. Lawson was born at Philadelphia on February 13, 1900, and attended the University of Pennsylvania. He entered railroad service in 1917 as assistant agent with the Reading at Corsons, Pa. After service with the United States Marine Corps, Mr. Lawson served the Reading as freight traf-

J. Warren Lawson

fic representative, traveling freight agent, city freight agent and industrial agent, successively. From 1939 to 1944 he was general freight and passenger agent of the Pennsylvania-Reading Seashore Lines and in the latter year he became general coal freight agent of the Reading. In 1945 he was appointed freight traffic manager, which position he held until his recent promotion.

MECHANICAL

As announced in *Railway Age* September 3, **Guy F. Wiles** has been appointed superintendent of motive

Guy F. Wiles

power of the Eastern region of the BALTIMORE & OHIO at Baltimore, succeeding **Frederick A. Baldinger,** retired. Mr. Wiles joined the B.&O. in

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In a country as big and productive as the United States, nothing else can do the job of the flanged wheels which roll on rails.

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1909 as a locomotive cleaner in the Grafton, W. Va., shops and in 1915 transferred to the Mt. Clare shops, where he became a machinist apprentice. During the next six years he handled a variety of jobs in both the Mt. Clare and Grafton shops and in 1921 became district motive power inspector at Wheeling, W. Va., transferring to Baltimore the following year. In 1937 Mr. Wiles was appointed special inspector at Baltimore and in 1940 became supervisor of diesel locomotive operations for the system at Baltimore. In 1950 he was promoted to assistant to the general superintendent of motive power and equipment at Baltimore, which position he held at the time of his recent appointment.

Mr. Baldinger was born at Crest-

Frederick A. Baldinger

line, Ohio, on August 23, 1881, and entered railroad service there in 1903 with the Pennsylvania, going with the Washington Terminal four years later. He joined the B.&O. in December 1913 at Mt. Clare shops, and later held various supervisory positions at several points. Mr. Baldinger subsequently served as assistant master mechanic, master mechanic, acting district master mechanic and district master mechanic. In 1942 he was appointed general supervisor of locomotive maintenance and in March 1943 became superintendent of motive power of the Eastern region.

ENGINEERING AND SIGNALING

W. B. Lee, division engineer of the WESTERN MARYLAND at Cumberland, Md., has been transferred to Hagerstown, Md., succeeding **G. H. Hornbaker,** who has retired after 38 years of service. **E. D. Billmeyer,** assistant division engineer at Cumberland, succeeds Mr. Lee as division engineer there.

Charles H. Blackman, chief engineer of the LOUISVILLE & NASHVILLE, at Louisville, Ky., has retired after more than 50 years' continuous service. His successor is **L. L. Adams,** assistant chief engineer, who is in turn

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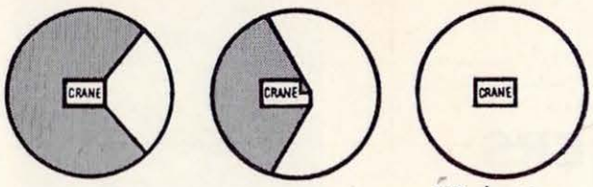
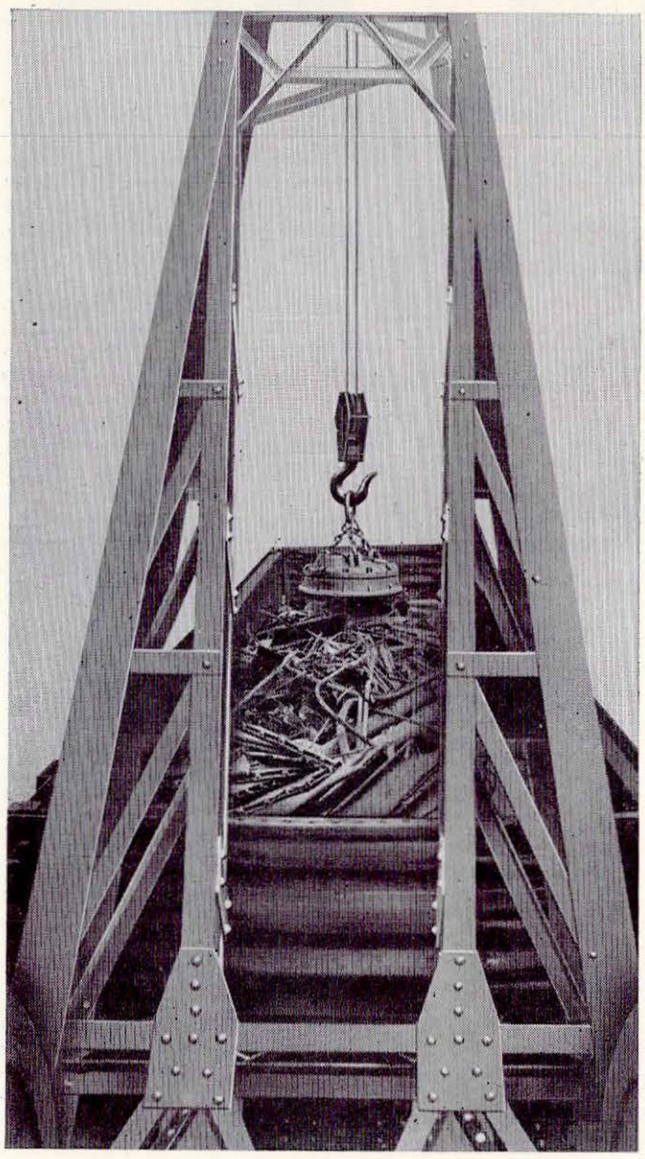


Approximate visibility from ordinary cab.

Approximate visibility with operator on side.

360 degree visibility from new Industrial Brownhoist Monitor-Type Cab.



Mounted high in the crane and surrounded by large windows, the operator in a Brownhoist patented Monitor-Type cab has full 360° visibility – forward, backward, and to both sides – providing safer operation, faster, more efficient loading and unloading. In addition the new Clear-Vision Boom is another Brownhoist feature that permits the operator an unobstructed view of his work. When unloading from high-walled railroad cars he can see right into the car.

The Monitor-Type cab is also designed for the safety and comfort of the operator. All controls are conveniently located and can be easily reached from a comfortable, well-raised seat. There's a soundproof partition between the operator and the machinery. There are doors on both sides of the cab and there's a 14″ safety clearance between car body and rotating upperworks.

Brownhoist Diesel and Diesel Electric Locomotive-Cranes are available in capacities from 20 tons up for speeding materials handling with magnet, hook or bucket. Write today for complete information.

BROWNHOIST BUILDS BETTER CRANES

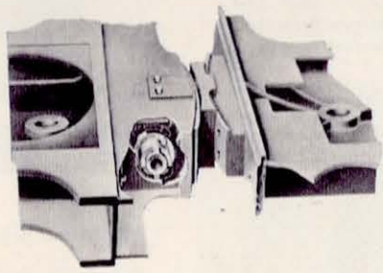
INDUSTRIAL BROWNHOIST CORPORATION, BAY CITY, MICHIGAN

DISTRICT OFFICES: New York, Philadelphia, Cleveland, San Francisco, Chicago, Canadian Brownhoist Ltd., Montreal, Quebec. **AGENCIES:** Detroit, Birmingham, Houston, Los Angeles. 148

CUT locomotive maintenance COSTS

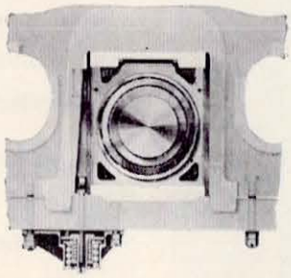
with these TWO SHOCK ABSORBERS

The Franklin E-2 Radial Buffer



The Franklin E-2 radial buffer reduces maintenance by dampening and absorbing horizontal shake and vertical vibration. This results in less wear on chafing plates, drawbars and pins; fewer pipe failures; less displaced brickwork; and fewer loose cabs. It requires minimum attention and will make any locomotive, at any speed, a better riding engine. Crews appreciate the greater comfort it brings.

The Franklin Compensator and Snubber



—Equally important with roller-bearing or surface-bearing locomotives, the Franklin Compensator and Snubber keeps the driving box or housing snug in the pedestal jaw, regardless of expansion or wear. It will absorb unusual thrusts and shocks. Driving box pound is eliminated. Wear and the possibility of failure of crank pins and rod bearings are minimized. Tire mileage is extended by reduction of quarter slip.

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NEW YORK • CHICAGO • TULSA • MONTREAL

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POWER REVERSE GEARS · FIRE DOORS · DRIVING BOX LUBRICATORS · OVERFIRE JETS
JOURNAL BOXES · FLEXIBLE JOINTS · TANK-CAR VALVE

RAILWAY DISTRIBUTOR FOR N.A. STRAND FLEXIBLE SHAFT EQUIPMENT

succeeded by **Howard C. Forman,** special engineer at Louisville. Advancing to succeed Mr. Forman is **Walter E. Quinn,** assistant engineer in charge of the miscellaneous department at Louisville. **F. H. Boulton,** division engineer on the Cincinnati division, becomes assistant engineer in charge of the chief engineer's miscellaneous department, and is succeeded by **R. B. Lindsey,** assistant engineer in the chief engineer's office. **James**

Charles H. Blackman

B. Bolling, assistant division engineer on the Louisville division, becomes assistant engineer in the miscellaneous department, while **John Leinard,** assistant engineer in the special engineer's force at Louisville, moves to the Louisville division as his successor.

A native of Nashville, Tenn., Mr. Blackman studied civil engineering at Vanderbilt University, and while attending school worked as chairman and rodman on preliminary and location surveys for the Tennessee Central. Beginning his career with the L.&N. in May 1901 as rodman on the

L. L. Adams

Louisville division, he subsequently moved up through the ranks, serving successively as assistant engineer, resident engineer on construction, assistant engineer in charge of the miscellaneous department and principal as-

SCENE: *Model 10* AUTOMATIC SIGNAL IN ACTION

Unseen—by the impatient motorist—is an on-rushing second train, concealed by the first. But there's no danger here of a dreaded "second train accident." Model 10's flashing lights will *continue* to operate, and the barrier arm will *remain* down until both trains have cleared the crossing.

Unseen—something that can't be illustrated: Model 10 *dependability*. Model 10's operate unfailingly, even when temperatures are extremely high or low . . . and regardless of snow or sleet. Moreover, Model 10's are on the job 24 hours a day—never go "off duty."

Unseen—the safety record established by Model 10's: Since 1936, thousands of these signals have been placed in operation at busy crossings, and *not a single accident has ever occurred as a result of operation failure.*

Unseen—the considerable dollar-and-cents economies effected by Model 10 protection. The low cost of Model 10 installation, operation, and maintenance is written in the records of a hundred railroads.

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Pyrene Manufacturing Co. of Canada, Limited: 91 E. Don Roadway, Toronto

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sistant engineer. He was promoted to chief engineer in July 1941.

Mr. Adams, who is a graduate of the University of Kentucky, served 11 months overseas during World War I and attained the rank of captain. He joined the L.&N. in May 1911 as rodman in the construction of DeCoursey yards, and later served in various posi-

Howard C. Forman

tions, including resident engineer, assistant engineer and roadmaster. Promoted to division engineer in 1931, he was advanced to engineer, maintenance of way, in 1936, and further elevated to assistant chief engineer in October 1943.

Born at Williamstown, Ky., Mr. Forman also graduated from the University of Kentucky, went with the L.&N. in October 1920 as instrumentman on the Eastern Kentucky division, and later served as draftsman, assistant engineer and division engineer. He became assistant engineer in charge of the chief engineer's miscellaneous department in June 1944. In May 1945 he was advanced to the newly-created position of special engineer.

William F. Auch, newly appointed signal engineer of the CHI-

William F. Auch

CAGO SOUTH SHORE & SOUTH BEND at Michigan City, Ind. (*Railway Age*, August 27), was born on September

1, 1890, at Chicago. Entering railroad service in July 1909 with the Chicago, Rock Island & Pacific on signal construction work at Washington, Iowa, Mr. Auch later held similar positions with the Union Switch & Signal Co., the Illinois Central, the Chicago, Burlington & Quincy and the Chicago, Milwaukee, St. Paul & Pacific. He joined the South Shore in December 1929, and subsequently acted successively as foreman, general foreman and signal supervisor, becoming assistant signal engineer in February 1950, the post he held prior to his new appointment.

PURCHASES & STORES

As reported in *Railway Age* August 20, **Felix H. Haas** has been appointed district purchasing agent of the UNION PACIFIC at Portland, Ore. Mr. Haas began his career with the U.P. at Portland in 1913 as a clerk in the headquarters office, being transferred three years later to the stores department in the same city. After returning from military leave in 1919, he returned to

Felix H. Haas

the same office briefly before being transferred to Cosmopolis, Wash., as stores foreman. Subsequently he served as storekeeper at six different locations in Washington and Oregon before returning to Portland as chief clerk in the purchasing department. It was from this latter position that he was named district purchasing agent.

OBITUARY

Charles W. Burke, 66, chief engineer maintenance of way of the NEW YORK CITY BOARD OF TRANSPORTATION, died on September 9 at the Rosary Hill Home, Hawthorne, N. Y.

Bismarck H. Taylor, 61, who was vice-president (traffic) of the DENVER & RIO GRANDE WESTERN at Denver, from 1930 to 1935 and assistant vice-president (traffic) of the CHICAGO, BURLINGTON & QUINCY at Chicago from 1935 to 1937, died of a heart attack on September 10 at his home in New York.

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OPERATING REVENUES AND OPERATING EXPENSES OF CLASS I STEAM RAILWAYS

Compiled from 127 monthly reports of revenues and expenses representing 131 Class I steam railways

(Switching and Terminal Companies Not Included)

FOR THE MONTH OF JUNE 1951 AND 1950

Item	United States		Eastern District		Southern District		Western District	
	1951	1950	1951	1950	1951	1950	1951	1950
Miles of road operated at close of month	225,903	226,406	53,261	53,340	45,957	46,093	126,685	126,973
Revenues:								
Freight	$710,732,390	$649,228,253	$266,039,891	$246,517,075	$147,300,861	$131,359,101	$297,391,638	$271,352,077
Passenger	80,640,947	71,660,287	40,561,759	37,962,254	11,698,808	9,050,670	28,380,380	24,647,363
Mail	19,738,426	17,589,818	7,684,456	6,363,465	3,227,095	3,229,387	8,826,875	7,996,966
Express	7,165,229	7,798,926	2,439,817	2,565,501	1,087,039	1,001,997	3,638,373	4,231,428
All other operating revenues	37,476,252	32,905,105	17,087,699	14,617,143	5,978,082	5,227,835	14,410,471	13,060,127
Railway operating revenues	855,753,244	779,182,389	333,813,622	308,025,438	169,291,885	149,868,990	352,647,737	321,287,961
Expenses:								
Maintenance of way and structures	132,485,601	115,712,687	46,286,330	40,505,565	26,401,946	23,626,712	59,797,325	51,580,410
Depreciation	11,165,785	10,847,620	4,601,482	4,516,380	2,070,543	1,967,539	4,493,760	4,363,701
Retirements	1,426,533	1,625,914	691,927	319,655	290,714	255,046	444,892	1,051,213
Deferred maintenance	*155,364	*93,639	*152,073	.....	*3,291	*42,513	.....	*51,125
Amortization of defense projects	101,084	156,039	*6,589	19,750	28,303	46,202	79,370	90,087
Equalization	*3,113,911	*4,212,849	*2,568,917	*2,877,505	11,077	*615,346	*556,071	*719,998
All other	123,061,474	107,389,602	43,720,500	38,527,285	24,004,600	22,015,784	55,336,374	46,846,533
Maintenance of equipment	166,715,803	141,671,292	68,914,942	60,433,374	34,342,758	27,802,967	63,458,103	53,434,951
Depreciation	26,474,403	24,877,982	9,681,812	9,378,458	5,900,391	5,537,064	10,892,200	9,962,460
Retirements	*65,340	*47,452	*9,185	*7,200	*12,184	*24,083	*43,971	*16,169
Deferred maintenance and major repairs	*682,090	*136,794	*662,635	*68,292	*1,897	*36,763	*17,558	*31,739
Amortization of defense projects	3,274,287	1,216,215	2,063,295	451,452	890,195	234,029	320,797	530,734
Equalization	834,937	1,896,697	*9,088	1,634,824	535,546	*217,405	308,479	479,278
All other	136,879,606	113,864,644	57,850,743	49,044,132	27,030,707	22,310,125	51,998,156	42,510,387
Traffic	18,046,121	16,239,628	6,023,563	5,580,947	3,792,242	3,349,399	8,230,316	7,309,282
Transportation—Rail line	324,452,554	282,995,940	135,696,842	120,281,318	58,382,093	50,496,692	130,373,619	112,217,930
Miscellaneous operations	10,590,901	9,580,817	3,607,853	3,223,428	1,539,485	1,250,273	5,443,563	5,107,116
General	25,393,996	22,562,943	9,686,387	8,781,670	5,425,054	4,963,814	10,282,555	8,817,459
Railway operating expenses	677,684,976	588,763,307	270,215,917	238,806,302	129,883,578	111,489,857	277,585,481	238,467,148
Net revenue from railway operations	178,068,268	190,419,082	63,597,705	69,219,136	39,408,307	38,379,133	75,062,256	82,820,813
Railway tax accruals	96,568,337	84,293,231	31,434,944	30,123,886	22,282,201	19,548,984	42,851,192	34,620,361
Pay-roll taxes	24,192,513	22,123,881	9,751,788	9,116,430	4,605,344	4,178,957	9,835,381	8,828,494
Federal income taxes†	42,683,025	34,590,845	11,056,673	11,057,797	11,365,670	9,613,027	20,260,682	13,920,021
All other taxes	29,692,799	27,578,505	10,626,483	9,949,659	6,311,187	5,757,000	12,755,129	11,871,846
Railway operating income	81,499,931	106,125,851	32,162,761	39,095,250	17,126,106	18,830,149	32,211,064	48,200,452
Equipment rents—Dr. balance	14,103,466	12,932,154	5,636,739	6,204,860	*82,128	*1,241,445	8,548,855	7,968,739
Joint facility rents—Dr. balance	3,466,417	3,167,977	1,708,763	1,480,765	462,941	481,742	1,294,713	1,205,470
Net railway operating income	63,930,048	90,025,720	24,817,259	31,409,625	16,745,293	19,589,852	22,367,496	39,026,243
Ratio of expenses to revenues (percent)	79.2	75.6	80.9	77.5	76.7	74.4	78.7	74.2

FOR THE SIXTH MONTHS ENDED WITH JUNE 1951 AND 1950

Item	United States		Eastern District		Southern District		Western District	
	1951	1950	1951	1950	1951	1950	1951	1950
Miles of road operated at close of month	225,981	226,545	53,291	53,361	45,957	46,131	126,733	127,053
Revenues:								
Freight	$4,236,226,025	$3,535,622,399	$1,569,821,343	$1,330,995,760	$900,012,201	$748,483,614	$1,766,392,481	$1,456,143,025
Passenger	430,623,390	376,141,697	217,777,612	201,637,121	70,827,811	59,054,873	142,017,967	115,449,703
Mail	120,033,824	106,958,283	46,621,985	38,815,793	19,779,308	19,053,450	53,632,531	49,089,040
Express	37,932,341	33,724,545	11,948,266	9,798,981	6,780,958	6,488,008	19,203,117	17,437,556
All other operating revenues	211,060,918	171,260,351	95,430,766	76,066,934	37,286,103	29,565,897	78,344,049	65,627,520
Railway operating revenues	5,035,876,498	4,223,707,275	1,941,599,972	1,657,314,589	1,034,686,381	862,645,842	2,059,590,145	1,703,746,844
Expenses:								
Maintenance of way and structures	719,577,361	606,966,300	255,374,209	209,469,538	157,700,348	131,753,458	306,502,804	265,743,304
Depreciation	66,769,819	64,805,898	27,586,420	27,048,881	12,368,841	11,677,114	26,814,558	26,079,903
Retirements	7,395,379	6,099,597	2,741,260	1,932,383	984,469	1,184,561	3,669,650	2,982,653
Deferred maintenance	*1,090,958	*1,152,550	*1,067,673	*800,000	*23,286	*134,593	1	*217,957
Amortization of defense projects	799,280	914,205	59,378	109,420	193,186	278,024	546,716	526,761
Equalization	10,427,981	5,606,677	3,497,737	2,205,239	5,783,174	4,489,478	1,147,070	*1,088,040
All other	635275,860	530,692,473	222,557,087	178,973,615	138,393,964	114,258,874	274,324,809	237,459,984
Maintenance of equipment	982,954,480	808,596,287	410,646,030	335,830,946	196,304,447	159,012,527	376,004,003	313,752,814
Depreciation	153,506,426	146,058,633	55,555,268	54,241,473	34,600,471	32,804,717	63,350,687	59,012,443
Retirements	*1,460,112	*262,015	*877,296	*34,262	*387,157	*127,375	*195,659	*100,378
Deferred maintenance and major repairs	*10,740,898	*8,802,953	*10,601,292	*8,452,096	*12,490	*61,642	*127,116	*289,215
Amortization of defense projects	18,519,672	7,323,162	7,388,572	2,708,957	4,063,155	1,422,074	7,067,945	3,192,131
Equalization	542,451	2,189,209	9,054	1,779,977	1,724,261	871,023	*1,190,864	*461,791
All other	822,586,941	662,090,251	359,171,724	285,586,897	156,316,207	124,103,730	307,099,010	252,399,624
Traffic	105,445,137	95,525,189	35,182,558	32,365,305	22,303,541	20,020,468	47,959,038	43,139,416
Transportation—Rail line	1,955,473,243	1,655,929,808	827,063,481	705,049,601	357,649,471	305,495,109	770,760,291	645,385,098
Miscellaneous operations	60,612,683	52,784,014	21,309,648	19,239,905	9,762,883	8,237,935	29,540,152	25,306,174
General	151,243,542	134,340,322	57,794,634	51,823,672	32,367,411	28,760,854	61,081,497	53,755,796
Railway operating expenses	3,975,306,446	3,354,141,920	1,607,370,560	1,353,778,967	776,088,101	653,280,351	1,591,847,785	1,347,082,602
Net revenue from railway operations	1,060,570,052	869,565,355	334,229,412	303,535,622	258,598,280	209,365,491	467,742,360	356,664,242
Railway tax accruals	570,919,760	434,899,975	172,746,699	148,599,035	141,987,384	105,801,738	256,185,677	180,499,202
Pay-roll taxes	142,086,638	125,137,299	58,294,196	51,171,093	27,343,953	23,897,884	56,448,489	50,068,322
Federal income taxes†	253,686,281	147,486,539	51,649,302	39,118,408	77,287,086	47,037,101	124,749,893	61,331,030
All other taxes	175,146,841	162,276,137	62,803,201	58,309,534	37,356,345	34,866,753	74,987,295	69,099,850
Railway operating income	489,650,292	434,665,380	161,482,713	154,936,587	116,610,896	103,563,753	211,556,683	176,165,040
Equipment rents—Dr. balance	80,038,860	68,970,125	35,470,409	32,309,996	374,522	*3,673,150	44,193,929	40,333,279
Joint facility rent—Dr. balance	21,566,737	19,399,643	10,406,654	9,068,274	3,008,495	3,077,366	8,151,588	7,254,003
Net railway operating income	388,044,695	346,295,612	115,605,650	113,558,317	113,227,879	104,159,537	159,211,166	128,577,758
Ratio of expenses to revenues (percent)	78.9	79.4	82.8	81.7	75.0	75.7	77.3	79.1

†Includes income tax, surtax, and excess profits tax.
*Decrease, deficit, or other reverse item.
Compiled by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission. Subject to revision.

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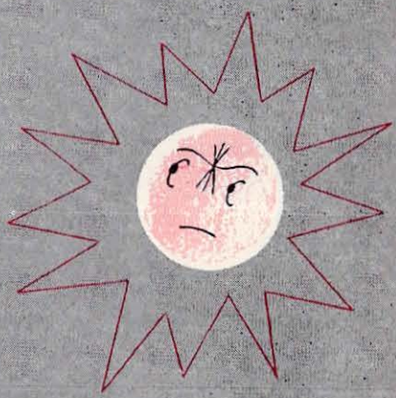

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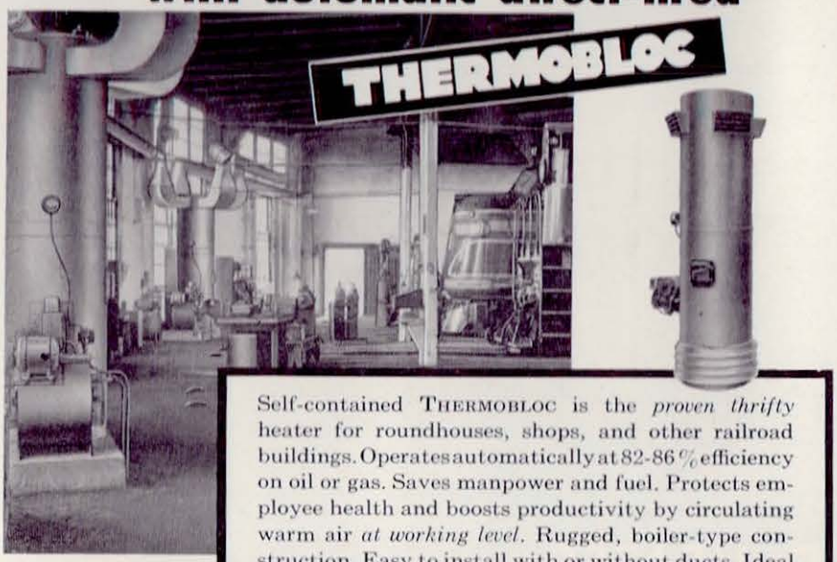

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Current Publications

PERIODICAL ARTICLES

New Line for New Earnings. Business Week, July 28, 1951, pp. 114-116. McGraw-Hill Publishing Company, 330 W. 42nd st., New York 18. Single copies, 25 cents.

Pullman's newest acquisition, the Trailmobile Company, is expected to help rebuild income cut off by sale of sleepers, and put another notch in Pullman's diversification program.

Transportation, Volume 5, 1951. 38 pages, illustrations, maps. Connecticut Valley Chapter, National Railway Historical Society, Inc., and Connecticut Valley Division, Electric Railroaders' Association, Inc., Warehouse Point, Conn. $1 plus 10 cents postage.

The current issue features a history of the Exeter, Hampton & Amesbury Street Railway, and of the Maybrook freight line of the New York, New Haven & Hartford, based on notes prepared by Leslie Tyler of the New Haven public relations department; the latter also includes a brief history of the famous Poughkeepsie bridge.

Seaway: With or Without U. S.? Business Week, August 11, 1951, pp. 148-149. McGraw-Hill Publishing Company, 330 W. 42nd st., New York 18. Single copies, 25 cents.

Discouraged by U. S. "squelching" of St. Lawrence project, Canada may go ahead on its own; is hopeful that U. S. will help supply needed materials.

Dining Car Blues, by Freeman H. Hubbard. Trains, September 1951, pp. 36-43. Kalmbach Publishing Company, 1027 N. 7th st., Milwaukee 3, Wis. Single copies (available at newsstands), 35¢; in Canada, 40¢.

In a manner which the general public and railroad hobbyists can readily understand, Mr. Hubbard has set forth the causes of dining car losses and the steps which individual roads have taken to reduce them. As a basis for his article, Mr. Hubbard sent an extensive questionnaire to every dining car officer in the U. S. and Canada. Through their replies, he traces the continuing effort to force back the squeeze of climbing labor and food costs to keep menu prices within reach of the average dining car patron. The results of such devices as the "continental breakfast," single-entree meals, grill, snack and coffee shop cars, "swing" crews for overnight trains, centralized cooking at commissaries, use of frozen foods, etc., are outlined by roads which have tried them.

The Minneapolis & St. Louis, by Frank P. Donovan, Jr. Entire July issue of the Palimpsest, monthly publication of the State Historical Society of Iowa, Iowa City. Single copies, 15¢.

A condensed history of "the Louie" by the author of "Mileposts on the Prairie" (*Railway Age*, December 16, page 49), with an added section devoted

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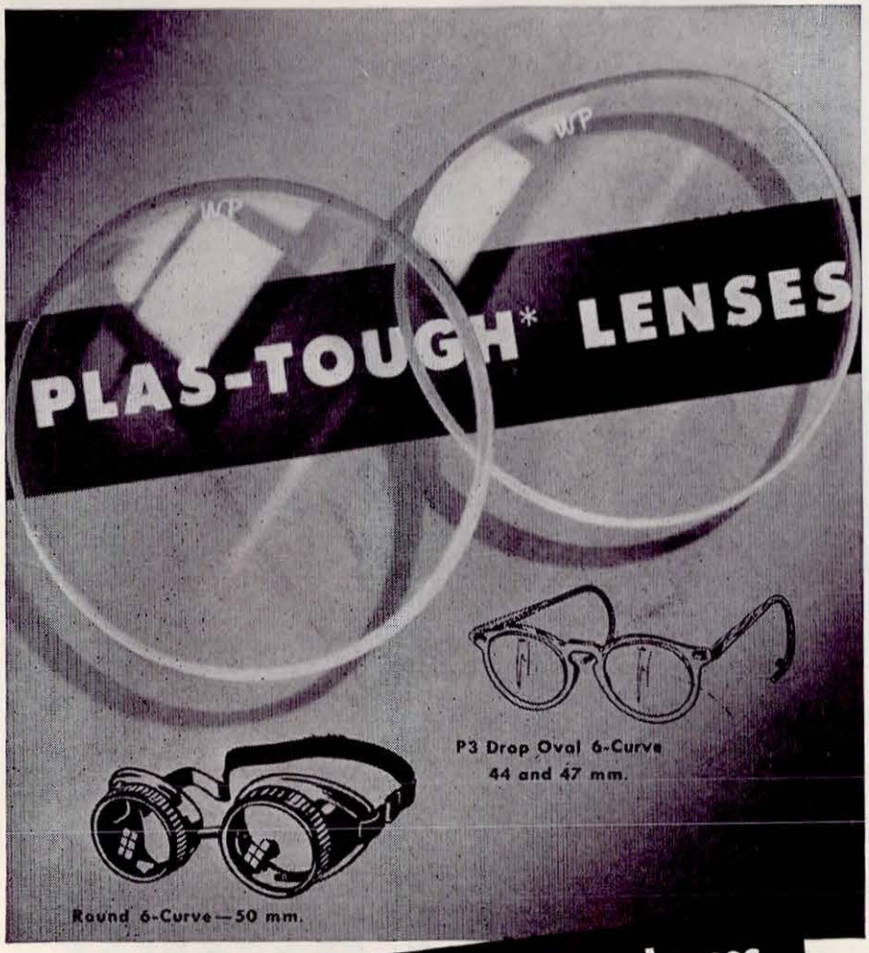

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FILMS & FILM CATALOGS

Target, U.S.A. 22 min., 16-mm., sound. Cornell Film Company, 1501 Broadway, New York 18. $200 in color; $100 in black and white.

Based on studies made by the National Security Resources Board with the assistance of the Department of Defense and the Research Institute of America, Target, U.S.A. is a graphic demonstration of industry and personnel in action prior to and under an atom bomb attack. The film utilizes live action, animation, charts, graphs and other Hollywood techniques to illustrate practical defense in terms of plants and personnel. With running commentary by Harry Marble, it answers such basic problems as how to protect people and property, how to build up effective plant-wide defense, how and where to build and allocate shelters, how to recruit a defense corps, how to set up first aid stations, how to safeguard important records, and what management and labor can do right now to set up protective measures against the possibility of an atomic attack. The film can be used with this company's previous film, Pattern for Survival, if desired.

An Introduction to Human Relations in Business and Industry. Human Relations for Industry, 443 Delaware ave., Buffalo 2, N. Y. Available on loan.

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TRADE PUBLICATIONS

American Electric Car Pullers. Catalog No. 100-H-66. 8 pages, illustrations. American Hoist & Derrick Co., St. Paul 1, Minn.

This is a catalog on the line of American electric car pullers for use wherever the moving of rail cars or other heavy equipment is necessary. Completely described in the catalog are the three types of car pullers available, the capstan, the drum and the continuous-rope types. Also given for each type are specifications and applications.

Tri-Lok Open Steel Flooring. Bulletin 1103. 16 pages, illustrations. Machinery division, Dravo Corporation, Fifth and Liberty aves., Pittsburgh 22.

A catalog containing specifications, safe-load tables, installation methods and other pertinent data in regard to Tri-Lok open-steel flooring and safety treads, T-Tri-Lok flooring and Tri-Lok floor armoring.

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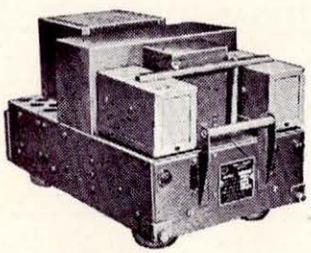

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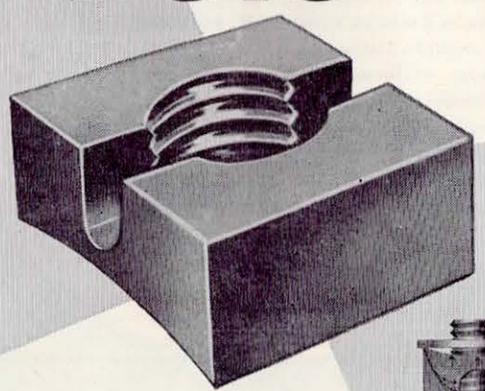

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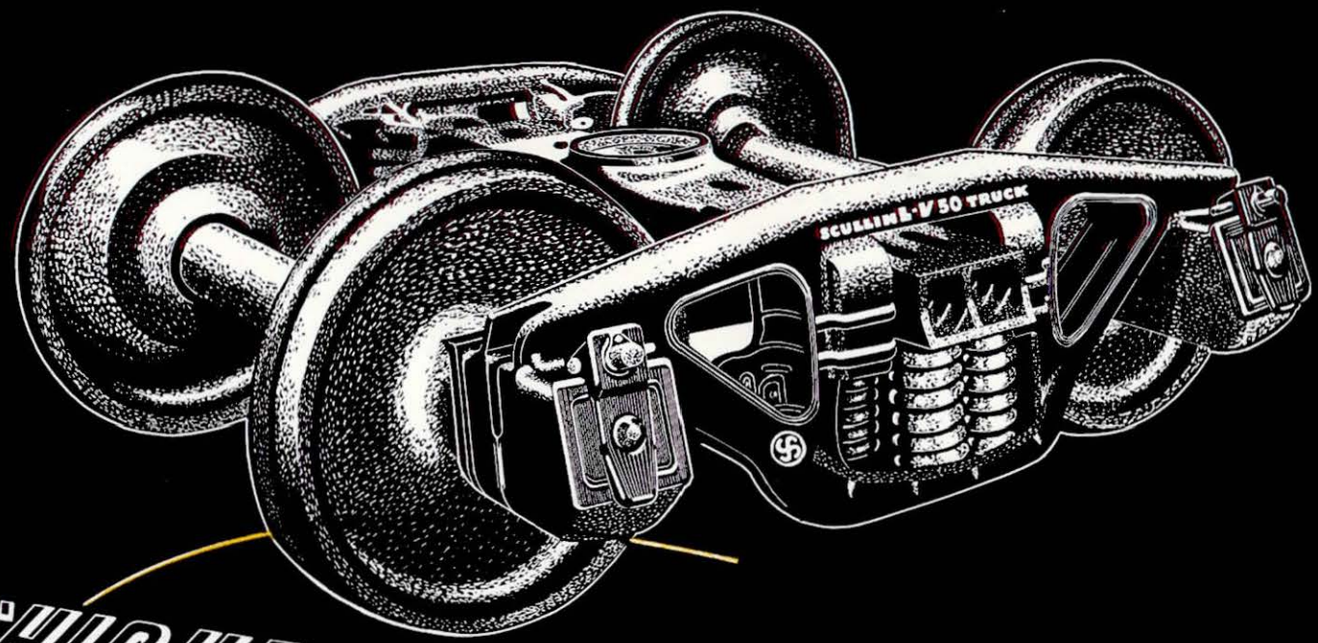

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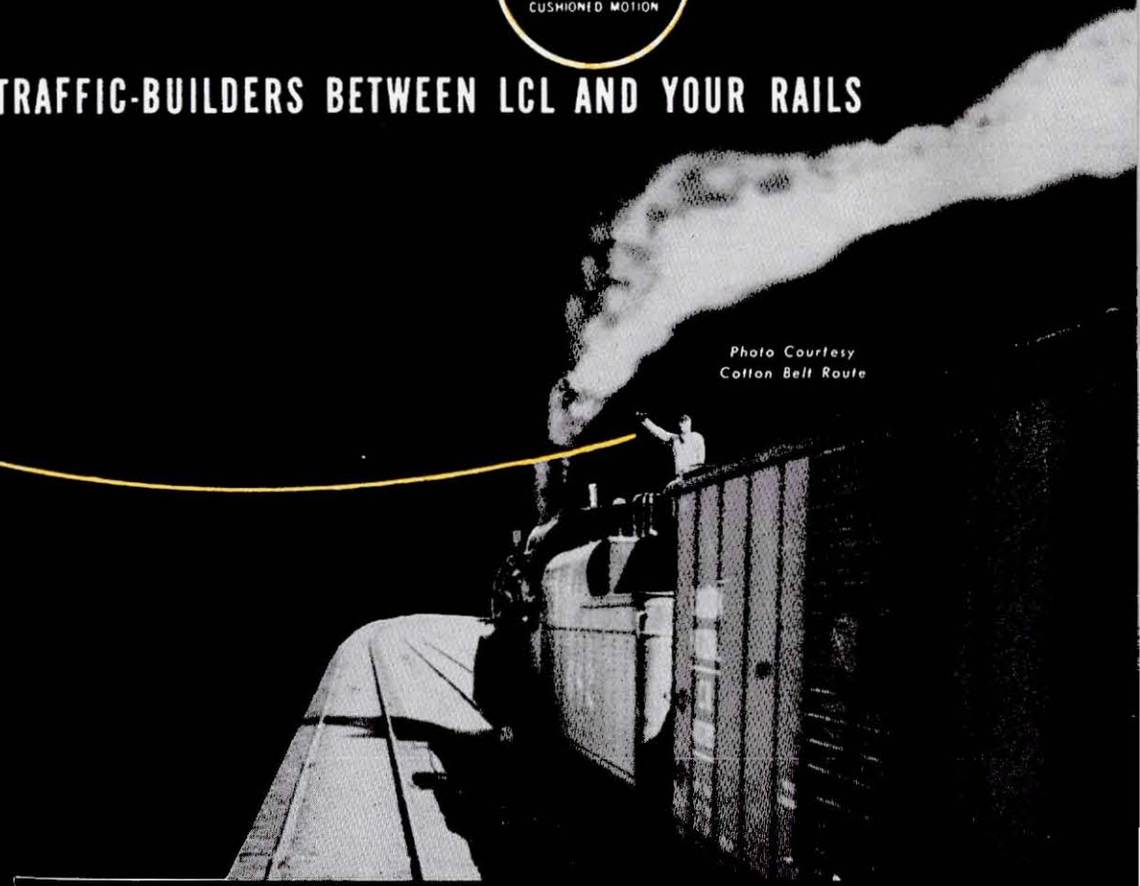

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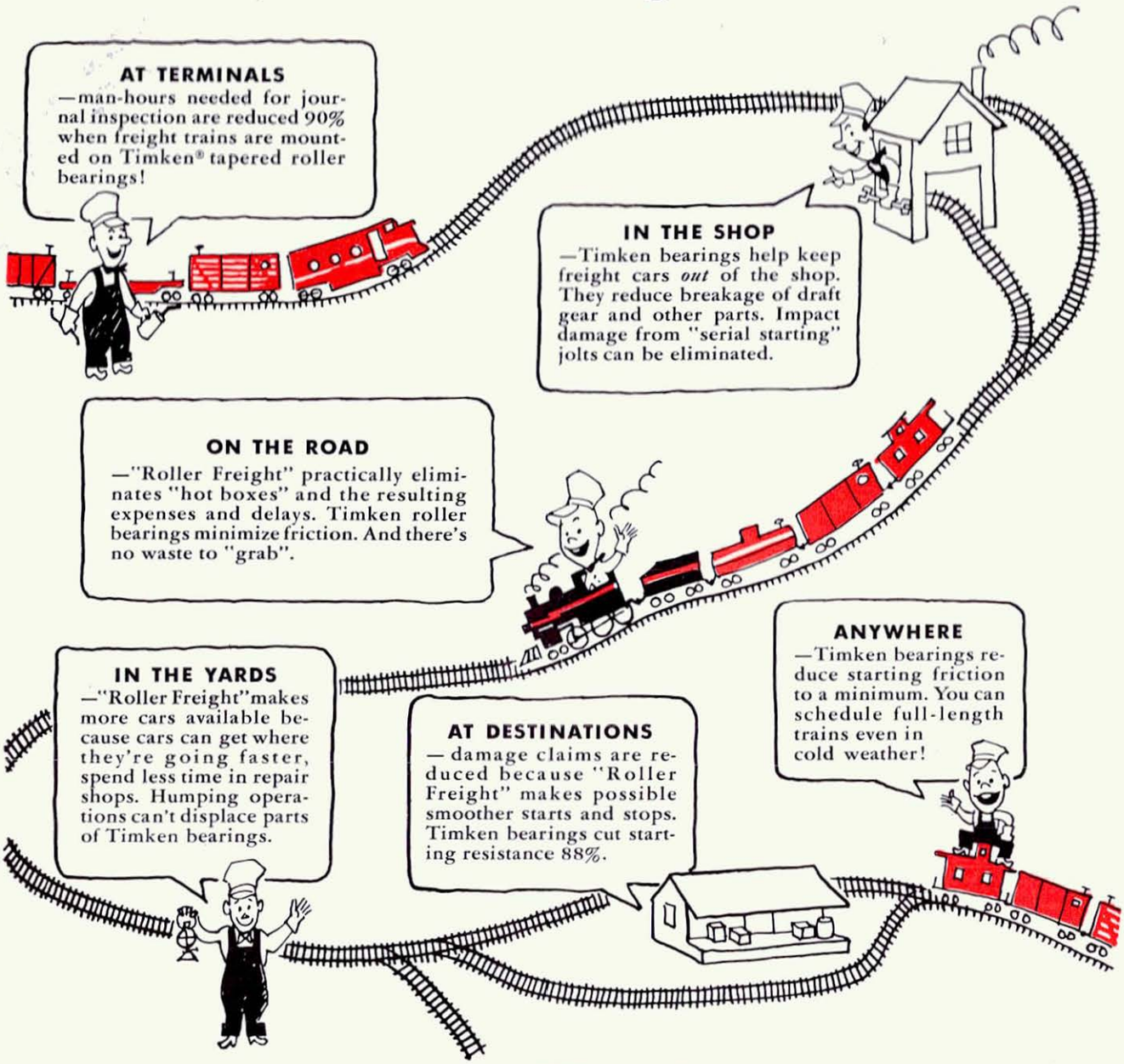

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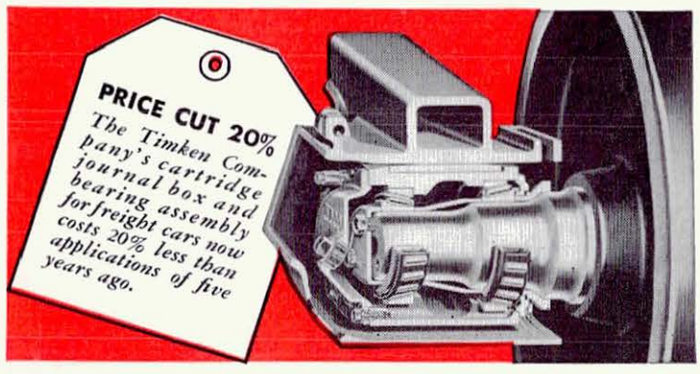
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